

Environmental spy



BSA

CONFIDENTIAL

March, 1971 75¢ MAC

# Galaxy

MAGAZINE  
SCIENCE FICTION

THEODORE  
STURGEON

A. BERTRAM  
CHANDLER

**A TIME OF CHANGES**  
the big new novel by  
**ROBERT SILVERBERG**  
begins in this issue!

The Best in Pertinent Science Fiction

March, 1971 75¢ MAC

## SPECIAL WONDER

### The Anthony Boucher Memorial Anthology of Fantasy and Science Fiction

As editor, writer, critic and friend, Anthony Boucher affected the lives of a considerable number of people. When he died in 1968, some of them decided to create a unique memorial—twin anthologies of the kinds of stories he had been most closely identified with. Beagle Books is proud to publish the paperback reprints of these anthologies, beginning with **SPECIAL WONDER**.



Vol. 1: Stories by Poul Anderson, Isaac Asimov, Ray Bradbury, R. Bretnor, Grendel Briarton, Fredric Brown, John Brunner, Doris Pitkin Buck, Mildred Clingerman, Avram Davidson, Jon De Cles, Miriam Allen DeFord, Richard Deming, Gordon R. Dickson, Harlan Ellison, Philip José Farmer.

Vol. 2: Stories by Horace B. Fyfe, Randall Garrett, Damon Knight, Kris Neville, William F. Nolan, Alan E. Nourse, Chad Oliver, Mack Reynolds, Margaret St. Clair, Howard Schoenfeld, Robert Silverberg, Jack Vance, Richard Wilson.

We will also publish shortly the companion anthology, **CRIMES AND MISFORTUNES**, containing stories by Queen, Stout, Carr, and twenty-six other top mystery writers. Like **SPECIAL WONDER**, it will appear in two volumes.

95¢ each wherever paperback books are sold.

The Beagle science fiction and fantasy list also includes:

*The Arkham Edition of H. P. Lovecraft*

**THE TOMB AND OTHER TALES, AT THE MOUNTAINS OF MADNESS, THE LURKING FEAR, THE LURKER AT THE THRESHOLD**  
*Lady Cynthia Asquith, ed.*

**THE SECOND GHOST BOOK, THE THIRD GHOST BOOK**

*Edward Wellen*

**HIJACK**

Beagle Books An ~~Inter~~ Publisher  
101 Fifth Avenue, New York, N.Y. 10003

# Galaxy

SCIENCE FICTION

## MAGAZINE

### ALL STORIES NEW

Galaxy is published in French, German, Italian, Japanese and Spanish. The U. S. Edition is published in Braille and Living Tape.



March, 1971

Vol. 31, No. 4

#### NOVELETTES

THE MOUNTAIN MOVERS .....	80
A. Bertram Chandler	
BUT THE SECRET SITS .....	118
Greg Benford	
MOTHER IN THE SKY WITH DIAMONDS .....	138
James Tiptree, Jr.	

#### SERIAL (Part I)

A TIME OF CHANGES .....	6
Robert Silverberg	

#### SHORT STORIES

PEGASUS TWO .....	65
Ernest Taves	
CHOICE .....	99
J.R. Pierce	
FROG POND .....	162
Chelsea Quinn Yarbro	
HERE COMES THE SUN .....	171
Duncan Lunan	
GEHENNA .....	184
Barry Malzberg	

#### FEATURES

AFTER SEX—WHAT? .....	2
Theodore Sturgeon	
GALAXY STARS .....	63
GALAXY BOOKSHELF .....	112
Algis Budrys	

**EJLER JAKOBSSON**  
Editor

**DONALD H. MENZEL**  
Science Editor

**LESTER DEL REY**  
Feature Editor

**JUDY-LYNN BENJAMIN**  
Managing Editor

**FRANC L. ROGGERI**  
Art Director

**JACK GAUGHAN**  
Associate Art Director

**JAY TUNICK**  
Circulation Director

**L.C. MURPHY**  
Subscription Director

**ARNOLD E. ABRAMSON**  
Publisher

**BERNARD WILLIAMS**  
Associate Publisher

GALAXY MAGAZINE is published monthly by UPD Publishing Corporation, a subsidiary of Universal Publishing & Distributing Corporation, Arnold E. Abramson, President. Main offices: 235 East 45 Street, New York, N.Y. 10017. 75¢ per copy. 12-issue subscription: \$7.50 in the United States, elsewhere \$8.50. Second class postage paid at New York, N.Y. and additional mailing offices. Copyright © 1971 by UPD Publishing Corporation under international, Universal and Pan-American Copyright Conventions. All rights reserved. The publisher assumes no responsibility for unsolicited material. All stories printed in this magazine are fiction and any similarity between characters and actual persons is coincidental. Title registered U.S. Patent Office. Printed in U.S.A.

Cover By GAUGHAN, suggested  
by PEGASUS TWO

# AFTER SEX - WHAT?

an editorial message from

**THEODORE STURGEON**

**B**ECAUSE everything, if you care to have it so, occurs on more levels than one and, if you like, everything can be a symbol or an analogue of other things, I shall answer the above as if it were a straight question, partly to get it out of the way of the other levels, and partly to share with you a great illumination. It was pivotal with me when it came to me some time ago. May it be the same to you.

To most of us, for most of our lives, the marvelous experience of sex is an arrival point, a place well worth all the thought and care and effort it takes to get there; to meet and to be met and to give and receive the joy of the meeting. Yet too few of us seem to understand that the occasion can be a point of departure—a place like an airport; and where you can go from there depends solely on your resources and the time you are willing to give to it. For a good many years I, with most of my co-passengers on the spaceship Earth, made my appointments and hurried to get there on time, bringing her with me to that special place, and once we

had done our thing—turned around and went home, never passing through the gateway we had reached.

On the other side of that gate is the country I now call *Afterward*, and it is the only land in which you can find out just who it is you are with without the dazzlement of sex. Just as you shed your clothes to get there, you shed the pressures of arrival and meeting; and in that new nakedness and undiluted awareness you may commune with the other human being as a human being—a condition which will last as long as your fulfilled/exhausted endocrine system will permit. It is at this time of all times when you must, if you care to enrich yourself, pay special attention to the one you're with. You'll find *Afterward* a surprising and richly rewarding place in which to be. Do you recall the scene in *Stranger in a Strange Land* when the innocent superman Mike first discovered girls, and kissed one? She was a highly sophisticated girl, but she fainted dead away. Her mentor, old Jubal, was fascinated by this and asked her



## Do you have the "faults" that could mean you were born to be a writer?

Writers usually hate to be "labeled," but there's no denying most of them share certain characteristics. They're dreamers. Loners. Bookworms. Too impractical, intense, idealistic. If you have "faults" like these, remember they may be the most creative parts of your personality. They could be a clear indication of a gift.

If you have such a gift, make the most of it. Hours you may be spending in time-killing diversions could be spent in *productive* recreation. In the writer's world, you can let your imagination roam free, doing what comes naturally to you.

### A unique writing school

But where do you begin? It's really very simple—we teach; you learn. Here at Famous Writers School, we've created a truly unusual writing program that comes to you—right in your home. The program shortens the years of trial-and-error; helps you avoid the failures of so many beginning writers. It's more like a shared adventure than a course.

### You get individualized training

All of our instructors are working editors or writers, who *know* what editors are looking for. While an instructor is working on your manuscript, he gives it his full attention. And when you get it back, you'll

find the kind of line-by-line editing established writers get from their own editors—plus a detailed letter of suggestions. No one can promise success. But with training like this, our students have sold to over 700 publications.

Think about it. Could you convert your "faults" into a gift for writing? Find out by sending for our free Aptitude Test. We'll evaluate it and return it to you without charge or obligation.



An educational service of  
FAS International

**Famous Writers School**  
Dept. W-5227, Westport Connecticut 06880

I want to know if I have writing aptitude worth developing. Please mail me without obligation, your Aptitude Test and illustrated brochure.

Mr. \_\_\_\_\_ Age \_\_\_\_\_  
Mrs. \_\_\_\_\_  
Miss [Circle one and please print]

Street. \_\_\_\_\_

City. \_\_\_\_\_

State. \_\_\_\_\_ Zip. \_\_\_\_\_

Accredited by the Accrediting Commission  
of the National Home Study Council.

why, and she said, very thoughtfully, "I think it's because, when Mike kisses you, *he isn't doing anything else!*"—an insight for which I shall be everlastingly grateful to Robert Heinlein. Apply it to your sex life and you'll discover a texture you have never known before. Apply it to your travels in Afterward and you'll learn things about yourself and others, and about love, and about loving, you never before suspected. Think this over when you think it's time to roll over and go to sleep. It may not be.

Which brings me to my main subject just now, which is sex in literature. ("Literature" as I use it here means stage and boobtube and cinema as well as the printed word.) Friends, it's been a great fight, but it's over. It's won. At long last we can say what we want, see what we want, when and where we want to. I think this is intrinsically good, for it isn't easy to frighten an informed person, and guilt is just one of the faces of fear. We have (providing we are careful not to let the pendulum swing back) wave after wave of new readers and thinkers and viewers on the way who will grow up without the sniggering mysteries which have plagued us for generations. People will, I think, grow up doing what they say they're doing, instead of denying it—the word is lying. Truth-telling is a habit-forming practice, and it might be possi-

ble for a future cultural historian to trace, in this new freedom, the beginnings of a morality based on honesty instead of on the kind of self-denial which breeds the lie, the "crimes without victims," the "secret vice," the policing of private practices and beautiful urges, and all the other maggots which have for so long embedded themselves in our mortified humanity. And freedom of sexual speech places a fine strong new support under the foundations of that greatest of our strengths—the freedom of all speech. This above all is why the fight has been a good fight and the victory a great one. We have an interim period to go through, of course, while it's all so new, where filth will proliferate. Let it. In literature the good does, in the long run, drive out the bad, if only by outlasting it. The beautifully written, courageous, and carefully thought out *Lady Chatterly* will long outlive any two-dollar paperback called *Gangbang Gal*. Let 'em come, let 'em pass. Strong sunlight shrivels them up.

But listen: *this battle is won*. Writers and would-be writers who, now that they can't run any risk, wallow in explicit sex and "shocking" language, dilute both the sex and the shock and exhibit what is after all the only really evil thing there is, which is Excess. (There is no such thing as a poisonous sub-

(Please turn to page 189)

**Fred Hoyle  
& Geoffrey Hoyle**

**ROCKETS IN URSA MAJOR**

One of the world's leading astrophysicists, who is also a peerless author of science fiction [*The Black Cloud*], collaborates with his son on a chilling story of Earth's cosmic battle against a virtually omnipotent alien power. **\$4.95**

**INDOCTRINAIRE**

**by Christopher Priest**

In the 22nd century, a young scientist at work in a laboratory beneath the Antarctic ice struggles to prevent a nuclear war in South America — the last habitable area on earth. "Remarkably interesting ... a splendid development of suspense."

—ALAN E. NOURSE **\$5.95**

**THE MIRROR OF INFINITY**

**Edited by Robert Silverberg**

This superb anthology of science fiction pairs 13 outstanding s-f stories with provocative comments by 13 noted critics. Among the authors: Isaac Asimov, Jorge Luis Borges, Robert A. Heinlein. Among the critics: Kingsley Amis, Robert Conquest, Damon Knight. "Recommended." — *Library Journal*. **\$6.95**

AT ALL BOOKSTORES, or from



**Harper & Row**

49 East 33d Street, New York, N.Y. 10016







ROBERT SILVERBERG

Guilt had pursued man to  
the stars—where he became  
the ultimate obscenity!

# A TIME OF CHANGES

PART ONE

**I** AM Kinnall Darival and I mean to tell you all about myself.

That statement is so strange to me that it screams in my eyes. I look at it on the page and I recognize the hand as my own, narrow upright red letters on the coarse gray sheet. I see my name and I hear in my mind the echoes of the brain-impulse that hatched those words.

*I am Kinnall Darival and I mean to tell you all about myself.*

Incredible.

This is to be what the Earthman Schweiz would call an "autobiography." Which means an account of one's self and deeds, written by one's own self. It is not a literary form that we understand in our world. I must invent my own method of narrative as I go, for I have no precedents to guide me. But this is as it should be. On this my planet I stand alone, now. In a sense I have invented a new way of life; I can surely invent a new sort of literature.

They have always told me I have a gift for words.

So I find myself in a clapboard shack in the Burnt Lowlands, writing obscenities as I wait for death and praising myself for my literary gifts.

*I am Kinnall Darival.*

Obscene! Obscene! Already on this one sheet I have used the pronoun "I" close to twenty times, it

seems. While also casually dropping such words as "my," "me," "myself," more often than I care to count. A torrent of shamelessness. I I I I I. If I exposed my manhood in the Stone Chapel of Manneran on Naming Day I would be doing nothing so foul as I am doing here. I could almost laugh. Kinnall Darival practicing a solitary vice. In this miserable lonely place he massages his stinking ego and shrieks offensive pronouns into the hot wind, hoping they will sail on the gusts and soil his fellow men. He sets down sentence after sentence in the naked syntax of madness. He would, if he could, seize you by the wrist and pour cascades of filth into your unwilling ear. And why? Is proud Darival in fact insane? Is nothing left but the shell of him, sitting in this dreary hut, obsessively titillating himself with disreputable language, muttering "I" and "me" and "my" and "myself," blearily threatening to reveal the intimacies of his soul?

No. It is Darival who is sane and all of you who are sick, and though I know how mad that sounds, I will let it stand. I am no lunatic. I have passed through a time of changes and I have been healed of the sickness that affects those who inhabit my world, and in writing what I intend to write I hope to heal you as well, though I know you are on your way into the Burnt Lowlands to slay me for my hopes.

So be it.

I am Kinnall Darival and I mean to tell you all about myself.

**L**INGERING vestiges of the customs against which I rebel still plague me. Perhaps you can begin to comprehend what an effort it is for me to frame my sentences in this style, to twist my verbs around in order to fit the first-person construction. I have been writing ten minutes and my body is covered with sweat, not the hot sweat of the burning air about me but the dank, clammy sweat of mental struggle. I know the style I must use but the muscles of my arm rebel against me, and fight to put down the words in the old fashion, saying, *One has been writing for ten minutes and one's body is covered with sweat . . .* saying, *One has passed through a time of changes, and he has been healed of the sickness that affects those who inhabit his world.* I suppose that much of what I have written could have been phrased in the old way and no harm done; but I do battle against the self-effacing grammar of my world and, if I must, I will joust with my own muscles for the right to arrange my words according to my present manner of philosophy.

In any case, however my former habits trick me into misconstruing my sentences, my meaning will blaze through the screen of words. I may say, "I am Kinnall Darival and I mean to tell you all about

myself." Or I may say, "One's name is Kinnall Darival and he means to tell you all about himself." But there is no real difference. Either way, the content of Kinnall Darival's statement is—by your standards, by the standards I would destroy—disgusting, contemptible, obscene.

**A**LSO I am troubled, at least in these early pages, by the identity of my audience. I assume, because I must, that I will have readers. But who are they? Who are you? Men and women of my native planet, perhaps, furtively turning my pages by torchlight, dreading the knock at the door? Or maybe otherworlders, reading for amusement, scanning my book for the insight it may give into an alien and repellent society? I have no idea. I can establish no easy relationship with you, my unknown reader. When I first conceived my plan of setting down my soul on paper, I thought it would be simple, a mere confessional, nothing but an extended session with an imaginary drainer who would listen endlessly and at last give me absolution. But now I realize I must take another approach. If you are not of my world—or if you are of my world but not of my time—you may find much that is incomprehensible here.

Therefore I must explain. Possibly I will explain too much and

drive you off by pounding you with the obvious. Forgive me if I instruct you in what you already know. Forgive me if my tone and mode of attack show lapses of consistency and I seem to be addressing myself to someone else. For you will not hold still for me, my unknown reader. You wear many faces for me. Now I see the crooked nose of Jidd the drainer, now the suave smile of my bond-brother Noim Condorit, and now the silkiness of my bondsister Halum—and now you become the tempter Schweiz of pitiful Earth, now you are my son's son's son's son's son, not to be born for a cluster of years and eager to know what manner of man your ancestor was—and now you are some stranger of a different planet, to whom we of Borthan are grotesque, mysterious and baffling. I do not know you, so I will be clumsy in my attempts to talk to you.

But, by Salla's Gate, before I am done you will know me as no man of Borthan has ever been known by others before!

**I** AM a man of middle years. Thirty times since the day of my birth has Borthan traveled around our golden-green sun, and on our world a man is considered old if he has lived through fifty such circuits, while the most ancient man of whom I ever heard died just short of his eightieth. From this

you may be able to calculate our spans in terms of yours, if other-worlder you happen to be. The Earthman Schweiz claimed an age of forty-three years by his planet's reckoning, yet he seemed no older than I.

My body is strong. Here I shall commit a double sin, for not only shall I speak of myself without shame, but I shall show pride and pleasure in my physical self. I am tall: a woman of normal height reaches barely to the lower vault of my chest. My hair is dark and long, falling to my shoulders. Lately streaks of gray have appeared in it and likewise in my beard, which is full and thick, covering much of my face. My nose is prominent and straight, with a wide bridge and large nostrils; my lips are fleshy and give me, so it is said, a look of sensuality; my eyes are deep brown in hue and are set somewhat far apart in my skull. They have, I am given to understand, the appearance of the eyes of one who has been accustomed all his life to commanding other men.

My back is broad and my chest is deep. A dense mat of coarse dark hair grows nearly everywhere on me. My arms are long. My hands are large. My muscles are well developed and stand out prominently beneath my skin. I move gracefully for a man my size, with smooth coordination; I excel in sports and when I was younger I hurled the feathered shaft the en-

tire length of Manneran Stadium, a feat that had never been achieved until then.

Women generally find me attractive. Certainly the political power I have held in my time has helped to bring many partners to my couch, but no doubt they were drawn to me as much by the look of my body as by anything more subtle. Most of them have been disappointed in me. Bulging muscles and a hairy hide do not a skilled lover make. I am no champion of copulation. See: I hide nothing from you. There is in me a certain constitutional impatience that expresses itself outwardly only during the carnal act—I find myself swiftly swept away, and rarely can I sustain the deed until the woman's pleasure comes. To no one, not even a drainer, have I confessed this failing before, nor did I ever expect that I would. But I place it on the record here, for perspective's sake. I would not have you think of me as a hairy, mighty giant without your also knowing how often my flesh has betrayed my lusts. Possibly this failing of mine was among the forces that shaped my destinies toward this day in the Burnt Lowlands, and you should know of that.

**M**Y FATHER was hereditary septarch of the province of Salla on our eastern coast. My mother was daughter to a septarch of Glin;

he met her on a diplomatic mission. The first child born to them was my brother Stirron, now septarch of Salla in our father's place. I followed two years later; there were three more after me, all of them girls. Two of these still live. My youngest sister was slain by raiders from Glin some twenty moontimes ago.

I knew my father poorly. On Borthan everyone is a stranger to everyone, but one's father is customarily less remote from one than others; not so with the old septarch. Between us lay an impenetrable wall of formality. In addressing him we used the same formulas of respect that subjects employed. His smiles were so infrequent that I think I can recall each one. Once, and it was unforgettable, he took me up beside him on his rough-hewn blackwood throne, let me touch the ancient yellow cushion and called me fondly by my child-name; it was the day my mother died. Otherwise he ignored me. I feared and loved him and crouched trembling behind pillars in his court to watch him dispense justice, thinking that if he saw me there he would have me destroyed—yet I was unable to deprive myself of the sight of my father in his majesty.

He was, oddly, a man of slender body and modest height, over whom my brother and I towered even when we were boys. But there was a terrible strength of will in

him that led him to surmount every challenge. Once in my childhood there came some ambassador to the septarchy, a hulking sun-blackened westerner who stands in my memory no smaller than Kongoroi Mountain; probably he was as tall and broad as I am now. At feasting-time the ambassador let too much blue wine down his throat and said before my father and his courtiers and his family, "One would show his strength to the men of Salla, to whom he may be able to teach something of wrestling."

"There is one here," my father replied in sudden fury, "to whom, perhaps, nothing need be taught."

"Let him be produced," the huge westerner said, rising and peeling back his cloak. But my father, smiling—and the sight of that smile made his courtiers quake—told the boastful stranger it would not be fair to make him compete while his mind was fogged with wine. This, of course, madened the ambassador beyond words. The musicians came in then to ease the tension, but the anger of our visitor did not subside and, after an hour, when the drunkenness had lifted somewhat from him, he demanded again to meet my father's champion. No man of Salla, said our guest, would be able to withstand his might.

Whereupon the septarch said, "I will wrestle you myself."

That night my brother and I

were sitting at the far end of the long table, among the women. Down from the throne-end came the stunning word "I" in my father's voice, and an instant later came "myself." These were obscenities that Stirron and I had often whispered, sniggering, in the darkness of our bedchamber, but we had never imagined we would hear them hurled forth in the feasting-hall from the septarch's own lips. In our shock we reacted differently, Stirron jerking convulsively and knocking over his goblet, myself letting loose a half-suppressed shrill giggle of embarrassment and delight that earned me an instant slap from a lady-in-waiting. My laughter was merely the mask for my inner horror. I could barely believe that my father knew those words, let alone that he would say them before this august company. *I will wrestle you myself.* And while the reverberations of the forbidden forms of speech still dizzied me, my father swiftly stepped forward, dropping his cloak, and faced the great hulk of an ambassador, closed with him, caught him by one elbow and one haunch in a deft Sallan hold and sent him almost immediately toppling to the polished floor of gray stone. The ambassador uttered a terrible cry. One of his legs was sticking strangely out at a frightening angle from his hip and in pain and humiliation he pounded the flat of

his hand again and again against the floor. Perhaps diplomacy is practiced in more sophisticated ways now in the palace of my brother Stirron.

**T**HE septarch died when I was twelve and just coming into the first rush of my manhood. I was near his side when death took him. To escape the time of rains in Salla he would go each year to hunt the hornfowl in the Burnt Lowlands, in the very district where now I hide and wait. I had never gone with him, but on this occasion I was permitted to accompany the hunting party, for now I was a young prince and must learn the skills of my class. Stirron, as a future septarch, had other skills to master; he remained behind as regent in our father's absence from the capital.

Under a bleak and heavy sky bowed with rainclouds the expedition of some twenty groundcars rolled westward out of Salla City and through the flat, sodden, winter-bare countryside. The rains were merciless that year, knifing away the precious, sparse topsoil and laying bare the rocky bones of our province. Everywhere the farmers were repairing their dikes but to no avail. I could see the swollen rivers running yellow-brown with Salla's lost wealth and I nearly wept to think of such treasure being carried into the sea.

As we came into West Salla the



WE'RE off to a fine start for the Spring season (you remember our Spring runs from February through July) with a Lovecraft celebration, to wit: **THE DOOM THAT CAME TO SARNATH** (with Lin Carter's usual perspicacious Introduction), plus **FUNGI FROM YUGGOTH** (now that ought to really grab the natural food bunch) and **Other Poems**, plus a re-issue of our old **SURVIVOR and Others**, by Lovecraft and August Derleth (these are the unfinished works that Derleth completed). Plus Beagle has a whole raft more. All the covers are stomach-whirlers. This is really a pretty big month for fantasy. Besides **SARNATH**, Lin has another in the Adult series, **THE BOATS OF THE "GLEN CARRIG,"** by William Hope Hodgson—a rare goodie—cover after Hieronymus Bosch. The Sales Department says that our Oriental fantasia (**THE SHAVING OF SHAGPAT**, George Meredith) isn't selling as well as all the other glorious fantasies. Either there's a bunch of racists out there or people don't know it's a fantasy because there aren't any weirdo animals on the cover. There's a man with a turban and a couple of sexy females, in a Persian sort of way. Buy.

ALSO in the month of February we'll



be doing two James White novels: one on his favorite theme—the medical world of outerspace—titled **MAJOR OPERATION**, and **TOMORROW IS TOO FAR**, a new area for White, but done with his usual meticulous, logical detail—all the more impressive because it makes things seem so damn believable. Other delights which may have been overlooked in the past several tempestuous months—**ON WITH THE WIND**, by (who else?). Martha Mitchell, a companion piece to **THE WISDOM OF SPIRO T. AGNEW**. It's a dollar—yell for it in bookstores. We have, of course, any number of books on the environment, ecology, style of life, etcetera—so many now that you really need to write in for a catalog. If you buy the lot, you'll know it all. Don't miss Paul Ehrlich's latest, **HOW TO BE A SURVIVOR**. (That was a special, in January—ought to be on the stands right about now.)

•  
THIS month we start a new publishing venture—Comstock Editions. Out on the West Coast, books all about regional areas for history buffs and anyone hooked on nostalgia—February titles; **MOONTRAP**, by DON Berry—a man who tried to trap the moonshine on a stream—and **COMMITTEE OF VIGILANCE**, by George Stewart, which proves that things weren't all that bloody good in the old days either.

BB

narrow road began to climb the foothills of the Huishtor range and soon we were in drier, colder country, where the skies gave snow, not rain, and the trees were mere bundles of sticks against the blinding whiteness. Up we went into the Huishtors, following the Kongoroi road.

The countryfolk came out to chant welcomes to the septarch as he passed. Now the naked mountains stood like purple teeth ripping the gray sky and even in our sealed groundcars we shivered, although the beauty of this tempestuous place took my mind from my discomforts. Here great flat shields of striated tawny rock flanked the rugged road and there was scarcely any soil at all, nor did trees or shrubs grow except in sheltered places. We could look back and see all of Salla like its own map below us, the whiteness of the western districts, the dark clutter of the populous eastern shore, everything diminished, unreal. I had never been this far from home before. Though we were now deep into the uplands, midway, as it were, between sea and sky, the inner peaks of the Huishtors still lay before us. To my eye they formed an unbroken wall of stone spanning the continent from north to south. Their snow-crowned summits jutted raggedly from that continuous lofty breastwork of bare rock: were we supposed to go over the top, or would there be

some way through? I knew of Salla's Gate and that our route lay toward it—but somehow the gate seemed mere myth to me at that moment.

Up and up and up we rode, until the generators of our groundcars were gasping in the frosty air and we were compelled to pause frequently to defrost the power conduits and our heads whirled from shortness of oxygen. Each night we rested at one of the camps maintained for the use of traveling septarchs, but the accommodations were far from regal and at one, where the entire staff of servants had perished some weeks before in a snowslide, it was necessary for us to dig our way through mounds of ice in order to enter. All of us in the party were men of the nobility and all of us wielded shovels except the septarch himself, for whom manual labor would have been sinful. Because I was one of the biggest and strongest of the men I dug more vigorously than anyone and, because I was young and rash, strained myself beyond my strength, collapsing over my shovel and lying half dead in the snow for an hour until I was noticed. My father came to me while they were treating me and smiled one of his rare smiles; just then I believed it was a gesture of affection and it greatly sped my recovery; but afterward I came to see it was more likely a sign of his contempt.

That smile buoyed me through the remainder of our ascent of the Huishtors. No longer did I fret about getting over the mountains, for I knew that I would, and on the far side my father and I would hunt the hornfowl in the Burnt Lowlands, going out together, guarding one another from peril, collaborating ultimately on the tracking and on the kill, knowing a closeness that had never existed between us in my childhood. I talked of that one night to my bondbrother Noim Condorit, who rode with me in my groundcar and who was the only person in the universe to whom I could say such things. "One hopes to be chosen for the septarch's own hunt group," I said. "One has reason to think that one will be asked. And an end made to the distance between father and son."

"You dream," said Noim Condorit. "You live in fantasies."

"One could wish," I replied, "for warmer encouragement from one's bondbrother."

**N**OIM was ever a pessimist; I took his dourness in stride and counted the days to Salla's Gate. When we reached it I was unprepared for the splendor of the place. All morning and half an afternoon we had been following a thirty-degree grade up the broad breast of Kongoroi Mountain, shrouded in the shadow of the great double

summit. It seemed to me we would climb forever and still have Kongoroi looming over us. Then our caravan swung around to the left, car after car disappearing behind a snowy pylon on the flank of the road. Our car's turn came, and when we had turned the corner I beheld an astonishing sight: a wide break in the mountain wall, as if some cosmic hand had pried away one corner of Kongoroi. Through the gap came daylight in a glittering burst.

This was Salla's Gate, the miraculous pass across which our ancestors came when first they entered our province, so many hundreds of years back, after their wanderings in the Burnt Lowlands. We plunged joyously into it, riding two and even three cars abreast over the hardpacked snow—and before we made camp for the night we were able to see the strange splendor of the Burnt Lowlands spread out astonishingly below us.

All the next day and the one that followed we rode the switchbacks down Kongoroi's western slope, creeping at a comical pace along a road that had little room to spare for us: a careless twitch of the stick and one's car would tumble into an infinite abyss. Ahead everything was red soil. Down into the desert we went, quitting winter and entering a stifling world where every breath tingled in the lungs, where dry winds lifted the ground in clouds, where odd twisted-

looking beasts scampered in terror from our oncoming cavalcade. On the sixth day we reached the hunting grounds, a place of ragged escarpments far below sea level. I am no more than an hour's ride from that place now. Here the hornfowl have their nests; all day long they range the baking plains, seeking meat, and at twilight they return, collapsing groundward in weird spiraling flight to enter their all but inaccessible burrows.

In the dividing of personnel I was one of thirteen chosen as the septarch's companions.

"One shares your joy," Noim told me solemnly, and there were tears in his eyes as well as in mine, for he knew what pain my father's coldness had brought me. At daybreak the hunt groups set out, nine of them, in nine directions.

**T**O TAKE a hornfowl near its nest is deemed shameful. The bird returning is usually laden with meat for its young and it therefore is clumsy and vulnerable, shorn of all its grace and power. Killing one as it plummets is no great task, but only a craven selfbarer would attempt it. (*Selfbarer!* See, how my own pen mocks me! I, who have bared more self than any ten men of Borthan, still unconsciously use the term as a word of abuse! But let it stand.) I mean to say that the virtue in hunting lies in the perils and difficulties of the chase, not in

the taking of the trophy, and we hunt the hornfowl as a challenge to our skills, not for its dismal flesh.

Thus hunters go into the open Lowlands, where even in winter the sun is devastating, where there are no trees to give shade or streams to ease the thirst. They spread out, one man here, two men there, taking up stations in that trackless expanse of barren red soil, offering themselves as the hornfowl's prey. The bird cruises at inconceivable heights, soaring so far overhead that it can be seen only as a black scratch in the brilliant dome of the sky; it takes the keenest vision to detect one, though a hornfowl's wingspread is twice the length of a man's body. From its lofty place the hornfowl scans the desert for incautious beasts. Nothing, no matter how small, escapes its glossy eyes; and when it detects good quarry it comes down through the turbulent air until it hovers house-high above the ground. Now it commences its killing-flight, flying low, launching itself on a series of savage circles, spinning a death-knot around its still unsuspecting victim. The first swing may sweep over the equivalent of half a province's area, but each successive circuit is tighter and tighter, while acceleration mounts, until ultimately the hornfowl has made itself a frightful engine of death that comes roaring in from the horizon at nightmarish

velocity. Now the quarry learns the truth, but it is knowledge not held for long: the rustle of mighty wings, the hiss of a slim powerful form cleaving the hot sluggish air—then the single long deadly spear sprouting from the bird's bony forehead finds its mark and the victim falls, enfolded in the black fluttering wings. The hunter hopes to bring down his hornfowl while it cruises almost at the limits of human sight; he carries a weapon designed for long-range shooting and the test is in the aim, whether he can calculate the interplay of trajectories at such vast distances. The peril of hunting hornfowl is this—one never knows if one is the hunter or the hunted, for a hornfowl on its killing-flight cannot be seen until it strikes its stroke.

So I went forth. I stood from dawn to midday. The sun worked its will on my winter-pale skin, such of it as I dared to expose; most of me was swaddled in hunting clothes of soft crimson leather, within which I boiled. We were arrayed in a double hexagon with my father alone between the two groups. Chance had it that I drew the point of my hexagon closest to him, but it was more than a feathered shaft's toss from his place to mine and all the morning long the septarch and I exchanged not a syllable. He stood with feet planted firm, watching the skies, his weapon at ready. I, too, studied the skies until my eyes ached for it,

until I felt twin strands of hot light drilling my brain and hammering against the back wall of my skull. More than once I imagined I saw the dark splinter of a hornfowl's shape drifting into view up there, and once in sweaty haste I came to the verge of raising my gun to it, which would have brought me shame, for one must not shoot until one has established priority of sighting by crying one's claim. I did not fire, and when I blinked and opened my eyes I saw nothing in the sky. The hornfowl seemed to be elsewhere that morning.

**A**T NOON my father gave a signal and we spread farther apart over the plain, maintaining our formation. My new position lay atop a low earthen mound in the form, almost, of a woman's breast, and fear took hold of me as I took up my place on it. I supposed myself to be terribly exposed and in imminent peril of hornfowl attack. As fright crept through my spirit I became convinced that a hornfowl was even now flying its fatal circuits around my hummock and that at any moment its lance would pierce my kidneys while I gazed stupidly at the metallic sky. The premonition grew so strong that I had to struggle to hold my ground; I shivered, I stole wary peeks over my shoulders, I clenched the stock of my gun for comfort, I strained my ears for the sound of my enemy's approach,

hoping to whirl and fire before I was speared. For this cowardice I reproached myself severely, even offering thanks that Stirron had been born before me, since obviously I was unfit to succeed to the septarchy. I reminded myself that not in three years had a hunter been killed in this way. I asked myself if it were plausible that I should die so young, on my first hunt, when there were others like my father who had hunted for thirty seasons and gone unscathed. I demanded to know why I felt this overwhelming fear, when all my tutors had labored to teach me that the self is a void and concern for one's person a wicked sin. Was not my father in equal jeopardy, far across the sun-smitten plain? And had he not much more than I to lose, being a septarch and a prime septarch at that, while I was only a boy?

In this way I cudged the fear from my damp soul and studied the sky without regard for the spear that might be aimed at my back—and in minutes my former fretting seemed an absurdity to me. I would stand here for days, if need be, unafraid. At once I had the reward of this triumph over self: against the shimmering fierceness of the sky I made out a dark floating form, a notch in the heavens, and this time it was no illusion, for my youthful eyes spied wings and horn. Did the others see it? Was the bird mine to attempt? If I made the kill,

would the septarch pound my back and call me his best son? All was silence from the other hunters.

"One cries claim!" I shouted jubilantly and lifted my weapon and eyed the sight, remembering what I had been taught, to let the inner mind make the calculations, to aim and fire in one swift impulse before the intellect, by quibbling, could spoil the intuition's command.

And in the instant before I sent my bolt aloft came a ghastly outcry from my left. I fired without aiming at all, turning in the same instant toward my father's place and seeing him half hidden beneath the madly flapping form of another hornfowl that had gored him from spine to belly. The air about them was clouded with red sand as the monster's wings furiously slapped the ground. The bird was struggling to take off, but a hornfowl cannot lift a man's weight, though this does not prevent them from attacking us. I ran to aid the septarch. He still was shouting and I saw his hands clutching for the hornfowl's scrawny throat, but now there was a liquid quality about his cries, a bubbling tone, and when I reached the scene—I was the first one there—he lay sprawled and quiet, the bird still rammed through him and covering his body like a black cloak. My blade was out; I slashed the hornfowl's neck as if it were a length of hose, kicked the carcass aside, began to wrench

desperately at the demonic head mounted so hideously upon the septarch's upturned back. Now the others came; they pulled me away. Someone seized me by the shoulders and shook me until my fit was past. When I turned to them again they closed their ranks to keep me from seeing my father's corpse—and then, to my dismay, they dropped to their knees before me to do homage.

Homage to me.

But of course it was Stirron and not I who became septarch in Salla. His crowning was a grand event, for, young though he was, he would be the prime septarch of the province. Salla's six other septarchs came to the capital—only on such an occasion were they ever to be found at once in the same city—and for a time everything was feasting and banners and the blare of trumpets. Stirron was at the center of it all and I on the margins, which was as it should be, though it left me feeling more like a stableboy than a prince. Once he was enthroned, Stirron offered me titles and land and power, but he did not really expect me to accept and I did not. Unless a septarch is a weakling, his younger brothers had best not stay nearby to help him rule, for such help is often not desired. I had had no living uncles on my father's side of the family and I did not care to have Stirron's sons be able to make the same statement; therefore I took myself







quickly from Salla once the time of mourning was ended.

I went to Glin, my mother's land. There, however, things were unsatisfactory for me and after a few years I moved on to the steamy province of Manneran, where I won my wife and sired my sons, became a prince in more than name and lived happily and sturdily until my time of changes began.

## II

**P**ERHAPS I should set down some words concerning my world's geography.

There are five continents on our planet of Borthan. In this hemisphere are two, Velada Borthan and Sumara Borthan, which is to say, the Northern World and the Southern World. It is a long sea journey from any shore of these continents to the continents of the opposite hemisphere, which have been named merely Umbis, Dabis, Tibis, that is, One, Two, Three.

Of those three distant lands I can tell you very little. They first were explored some seven hundred years ago by a septarch of Glin and not five seeking-parties have been to them in all the time since. No human folk dwell in that hemisphere. Umbis is said to be largely like the Burnt Lowlands, but worse, with golden flames bursting from the tormented land in many places. Dabis is jungles

and fever-ridden swamps. Tibis is covered with ice.

We are not a race afflicted with the wanderlust. I myself was never a voyager until circumstances made me one. Though the blood of the ancient Earthmen flows in our veins and they were wanderers whose demons drove them out to prowl the stars, we of Borthan stay close to home. Even I who am somewhat different from my comrades in my way of thinking never hungered to see the snow-fields of Tibis or the marshes of Davis, except perhaps when I was a child and eager to gobble all the universe. Among us it is considered a great thing merely to journey from Salla to Glin, and rare indeed is the man who has crossed the continent, let alone ventured to Sumara Borthan, as I have done.

More of that later.

Velada Borthan is the home of our civilization. The mapmakers' art reveals it to be a large squarish landmass with rounded corners. Two great V-shaped indentations puncture its periphery: along the northern coast, midway between the eastern and western corners, is the Polar Gulf and, due south on the opposite coast, is the Gulf of Sumar. Between those two bodies of water lie the Lowlands, a trough that spans the entire continent from north to south. No point in the Lowlands rises higher above sea level than the height of five men and many places notably

in the Burnt Lowlands, are far below sea level.

A folk tale we tell our children concerns the shape of Velada Borthan. We say that the great ice-worm Hrungir, born in the waters of the North Polar Sea, stirred and woke one day in sudden appetite and began to nibble at the northern shore of Velada Borthan. The worm chewed for a thousand thousand years, until it had eaten out the Polar Gulf. Then, its voracity having made it somewhat ill, it crawled up on the land to rest and digest what it had devoured. Uneasy at the stomach, Hrungir wriggled southward, causing the land to sink beneath its vast weight and the mountains to rise in compensation to the east and west of its resting place. The worm rested longest in the Burnt Lowlands, which accordingly were depressed more deeply than any other region. In time the worm's appetite revived and it resumed its southward crawl, coming at last to a place where a range of mountains running from east to west barred its advance. Then it chewed the mountains, creating Stroin Gap, and proceeded toward our southern coast. In another fit of hunger the worm bit out the Gulf of Sumar. The waters of the Strait of Sumar rushed in to fill the place where the land had been and the rising tide carried Hrungir to the continent of Sumara Borthan, where now the iceworm lives, coiled beneath the

volcano Vashnir and emitting poisonous fumes. So the fable goes.

**T**HE long narrow basin that we think of as Hrungir's track is divided into three districts. At the northern end we have the Frozen Lowlands, a place of perpetual ice where no man ever is seen: legend has it that the air is so dry and cold that a single breath will turn a man's lungs to leather. South of the Frozen Lowlands lie the immense Burnt Lowlands, which are almost totally without water and on which the full fury of our sun constantly falls. Our two towering north-south mountain ranges prevent a drop of rain from entering the Burnt Lowlands, nor do any rivers or streams reach it. The soil is bright red, with occasional yellow streaks—this we blame on the heat of Hrungir's belly, though our geologists tell another tale. Small plants live in the Burnt Lowlands, taking their nourishment from I know not where and there are many kinds of beasts, all of them strange, deformed and unpleasant. At the southern end of the Burnt Lowlands is a deep east-west valley, several days' journey in breadth. On its far side lies the small district known as the Wet Lowlands.

Northerly breezes coming off the Gulf of Sumar carry moisture through Stroin Gap; these winds

meet the fierce hot blasts out of the Burnt Lowlands and are forced to drop their burden not far above the Gap, creating a land of dense, lush vegetation. Never do the water-laden breezes from the south succeed in getting north of the Wet Lowlands to bathe the zone of red soil. The Frozen Lowlands, as I have said, go forever unvisited, and the Burnt Lowlands are entered only by hunters and those who must travel between the eastern and western coasts, but the Wet Lowlands are populated by several thousand farmers, who raise exotic fruits for the city folk. I am told that the constant rain rots their souls, that they have no form of government in there, and that our customs of self-denial are imperfectly observed. I would be among them now, to discover their nature at first hand, if only I could slip through the cordon that my enemies have set up to the south of this place.

The Lowlands are flanked by two immense mountain ranges: the Huishtors in the east, the Threish-tors in the west. These mountains begin on Velada Borthan's northern coast, virtually at the shores of the North Polar Sea, and march southward, gradually curving inland; the two ranges would join not far from the Gulf of Sumar if they were not separated by Stroin Gap. They are so high that they intercept all winds. Therefore their inland slopes are barren, but the

slopes facing the oceans enjoy fertility.

Mankind in Velada Borthan has carved out its domain in the two coastal strips, between the oceans and the mountains. In most places the land is at best marginal, so that we are hard put to have all the food we need and life is constant struggle against hunger. Often one wonders why our ancestors, when they came to this planet so many generations ago, chose Velada Borthan as their settling-place; the farming would have been far easier in the neighboring continent of Sumara Borthan and even swampy Dabis might have offered more cheer. The explanation we are given is that our forefathers were stern, diligent folk who relished challenge and feared to let their children dwell in a place where life might be insufficiently harsh. Velada Borthan's coasts were neither uninhabitable nor unduly comfortable; therefore they suited the purposes. I believe this to be true, for certainly the chief heritage we have from those ancient ones is the notion that comfort is sin and ease is wickedness. My bondbrother Noim, though, once remarked that the first settlers chose Velada Borthan because that was where their starship happened to come down and, having hauled themselves across all the immensities of space, they lacked the energy to travel onward even one more continent in quest of a better home. I

doubt it, but the slyness of the idea is characteristic of my bondbrother's taste for irony.

The firstcomers planted their initial settlement on the western coast, at the place we call Threish, that is, the place of the Covenant. They multiplied rapidly and, because they were a stubborn and quarrelsome tribe, they splintered early, this group and that going off to live apart. Thus the nine western provinces came into being.

In time the limited resources of the west were exhausted and emigrants sought the eastern coast. We had no air transport then, not that we have a great deal now; we are not a mechanically minded people and we lack natural resources to serve as fuels. Thus they went east by groundcar or whatever served as groundcars then. The three Threishtor passes were discovered and the bold ones bravely entered the Burnt Lowlands. We tell long mythic epics of the hardships of these crossings. Getting over the Threishtors into the Lowlands was difficult, but getting out on the far side was close to impossible, for there is only one route over the Huishtors out of the red-soil country fit for humans, and that is by way of Salla's Gate, the finding of which was no small task. But they found it and poured through and established my land of Salla. When the quarreling came, a good many went north and founded Glin and later others went south to settle

in holy Manneran. For a thousand years it was sufficient to have but three provinces in the east, until in a new quarrel the small but prosperous maritime kingdom of Krell carved itself out of a corner of Glin and a corner of Salla.

There also were some folk who could not abide life in Velada Borthan at all, and put to sea from Manneran, sailing off to settle in Sumara Borthan. But one need not speak of them in a geography lesson; I will have much to say of Sumara Borthan and its people when I have begun to explain the changes that entered my life.

**T**HIS cabin where I hide myself now is a shabby thing. Its clapboard walls were indifferently put together to begin with and now are crazed, so that gaps yawn at the joints and no angle is true. The desert wind passes through here unhindered; my page bears a light coating of red soil, my clothes are caked with it, even my hair has a red tinge. Lowlands creatures crawl freely in with me. I see two of them moving about the earthen floor now, a many-legged gray thing the size of my thumb and a sluggish two-tailed serpent not as long as my foot. For hours they have circled one another idly, as though they wish to be mortal foes but cannot decide which of them is to eat the other. Dry companions for a parched time.

I should not mock this place,

though. Someone troubled to drag its makings here, in order that weary hunters might have shelter in this inhospitable land. Someone put it together, doubtless with more love than skill, and left it here for me and it serves me well. Perhaps it is no fit home for a septarch's son, but I have known my share of palaces and I no longer need stone walls and groined ceilings. It is peaceful here. I am far from the fishmongers and the drainers and the wine-peddlers and all those others whose songs of commerce clang in the streets of cities. A man can think; a man can look within his soul and find those things that have been the shaping of him, draw them forth and examine them and come to know himself. In this our world we are forbidden by custom to make our souls known to others, yes, but why has no one before me observed that that same custom, without intending it, keeps us from coming to know ourselves? For nearly all my life I-kept the proper social walls between myself and others, and not till the walls were down did I see I had walled myself away from myself as well. But here in the Burnt Lowlands I have had time to contemplate these matters and to arrive at understanding. This is not the place I would have chosen for myself, but I am not unhappy here.

I do not think they will find me for some while yet.

Now it is too dark in here to write. I will stand by the cabin door and watch the night come rolling across the Lowlands toward the Huishtors. The stars will blaze. Schweiz once tried to show me the sun of Earth from a mountaintop in Sumara Borthan. He insisted he could see it and begged me to squint along the line of his pointing hand, but I think he was playing a game with me, I think that that sun may not be seen at all from our sector of the galaxy. Schweiz played many a game with me when we traveled together, and perhaps he will play more such games one day if ever we meet again—if still he lives.

**L**AST night in a dream my bond-sister Halum Helalam came to me.

With her there can never be more games and only through the slippery-walled tunnel of dreams is she apt to reach me. Therefore while I slept she glowed in my mind more brightly than any star that lights this desert, but waking brought me sadness and shame and the memory of my loss of her who is irreplaceable.

Halum of my dream wore only a light filmy veil through which her small rosy-tipped breasts showed—and her slim thighs and her flat belly, the belly of an unchilded woman. It was not the way she often dressed in life, especially when paying a call on her bondbro-

ther, but this was the Halum of my dream, made wanton by my lonely and troubled soul. Her smile was warm and tender and her dark shining eyes glistened with love.

In dreams one's mind lives on many levels. On one level of mine I was a detached observer, looking down upon my own sleeping body. On another level I lay asleep. The dream-self that slept did not perceive Halum's presence, but the dream-self that watched was aware of her and I, the true dreamer, was aware of them both and also aware that all I saw was coming to me in a vision. But inevitably there was some mingling of these levels of reality, so that I could not be sure who was the dreamer and who the dreamed, nor was I certain that the Halum who stood before me in such radiance was a creature of my fantasy rather than the living Halum I once had known.

"Kinnall," she whispered, and in my dream I imagined that my sleeping dream-self awoke, propping himself upon his elbows, with Halum kneeling close beside his cot. She leaned forward until her breasts brushed the shaggy chest of that man who was I, and touched her lips to mine in a flick of a caress and said, "You look so weary, Kinnall."

"You should not have come here."

"One was needed. One came."

"It is not right. To enter the Burnt Lowlands alone, to seek out

one who has brought you only harm—"

"The bond that links one to you is sacred."

"You've suffered enough for that bond, Halum."

"One has not suffered at all," she said, and kissed my sweaty forehead. "How *you* must suffer, hiding in this dismal oven!"

"It is no more than one has earned," I said.

Even in my dream I spoke to Halum in the polite grammatical form. I had never found it easy to use the first person with her; certainly I never used it before my changes and afterward, when no reason remained for me to be so chaste with her, I still could not. My soul and my heart had yearned to say "I" to Halum and my tongue and lips were padlocked by propriety.

She said, "You deserve so much more than this place. You must come forth from exile. You must guide us, Kinnall, toward a new Covenant, a Covenant of love, of trust in one another."

"One fears he has been a failure as a prophet. One doubts the value of continuing such efforts."

"It was all so strange to you, so new!" she said. "But you were able to change, Kinnall, and to bring changes to others—"

"To bring grief to others and to oneself."

"No. No. What you tried to do was right. How can you give up

now? How can you resign yourself to death? There's a world out there in need of being freed, Kinnall!"

"One is trapped in this place. One's capture is inevitable."

"The desert is wide. You can slip away from them."

"The desert is wide, but the gates are few and all of them are watched. There's no escape."

She shook her head, smiled, pressed her hands urgently against my hips and said in a voice thick with hope, "I will lead you to safety. Come with me, Kinnall."

The sound of that *I* and the *me* that followed it out of Halum's imagined mouth fell upon my dreaming soul like a rainfall of rusted spikes—the shock of hearing those obscenities in her sweet voice nearly awakened me. This thing I tell you to make it clear that I am not fully converted to my own changed way of life, that the reflexes of my upbringing still govern me in the deepest corners of my soul. What happened next was also revealing, though far less subtle. To urge me from my cot Halum's hands slipped over my body, working their way through the tangled thatch over my gut, and her cool fingers seized me. Instantly my heart thundered and the ground heaved as though the Lowlands were splitting apart and Halum uttered a little cry of fear. I reached for her, but she was growing indistinct and insubstantial—and in one terrible convulsion of the

planet I lost sight of her and she was gone. I woke, coming up through the levels of my dream. I found myself alone in the hut.

"*Halum!*" I cried. "*Halum, Halum, Halum!*"

My voice made the cabin quiver, but she did not return. And slowly my sleep-fogged mind grasped the truth, that the Halum who had visited me had been unreal.

We of Borthan do not take such visions lightly, however. I rose and went from my cabin into the darkness outside and walked about, scuffling at the warm sand with my bare toes as I struggled to excuse my inventions to myself. Slowly I calmed. Yet I sat by my doorstep unsleeping for hours, until dawn's first green fingers crept upon me.

Beyond doubt you will agree with me that a man who has been apart from women some time, living under the tensions I have known since my flight into the Burnt Lowlands, will occasionally experience such sexual eruptions in his sleep, nor is there anything unnatural about them. I must maintain also, though I have little enough evidence to prove it, that many men of Borthan find themselves giving way in slumber to expressions of desire for their bondsisters, simply because such desires are so rigidly repressed in the waking time. And further, although Halum and I enjoyed intimacies of soul far beyond those

which men customarily enjoy with their bondsisters, never once did I seek her physically, nor did such a union ever occur. Take this on faith, if you will: in these pages I tell you so much that is discreditable to me, making no attempt to conceal that which is shameful, that if I had violated Halum's bond I would tell you that as well. You may not hold me guilty of sins committed in dreams.

Nevertheless I held myself guilty through the waning of the night and into this morning, and only as I purge myself now by putting the incident on paper does the darkness lift from my spirit. I think what has really troubled me these past few hours is not so much my sordid little sexual fantasy, for which even my enemies would probably forgive me, as it is my belief that I am responsible for Halum's death—for which I am unable to forgive myself.

### III

**P**OSSIBLY I should say that every man of Borthan—and by the same token every woman—is sworn at birth or soon thereafter to a bondsister and bondbrother. No member of any such tripling may be blood-kin to any other. The bondings are arranged soon after a child is conceived, and often are the subject of intricate negotiation, since one's bondbrother

and bondsister are customarily closer to one than one's own family-by-blood; hence a father owes it to his child to make the bondings with care.

Because I was to be a septarch's second son, arranging my bondings was a matter of high circumstance. It might have been good democracy, but poor sense, to bond me to a peasant's child, for one must be reared on the same social plane as one's bond-kin if any profit is to come from the relationship. On the other hand I could not be bonded to the kin of some other septarch, since fate might one day elevate me to my father's throne, and a septarch must not be tangled in ties of bonding to the royal house of another district lest he find his freedom of decision circumscribed. Thus it was necessary to make bondings for me with the children of nobility but not of royalty.

The project was handled by my father's bondbrother, Ulman Kotril; it was the last aid he ever gave my father, for he was slain by bandits from Krell not long after my birth. To find a bondsister for me, Ulman Kotril went down into Manneran and obtained bonding with the unborn child of Segvord Helalam, High Justice of the Port. It had been determined that Helalam's child was to be female; hence my father's bondbrother returned to Salla and completed the tripling by compacting with Luinn Condo-



rit, a general of the northern patrol, for his coming son.

Noim, Halum and I were born all in the same week and my father himself performed the service of bonding. (We were known by our child-names then, of course, but I ignore that here to simplify things.) The ceremony took place in the septarch's palace, with proxies standing in for Noim and Halum; later, when we were old enough to travel, we repledged our bonds in each other's presence, I going to Manneran to be bonded to Halum. Thereafter we were only infrequently apart. Segvord Helalam had no objection to letting his daughter be raised in Salla, for he hoped she would strike a glittering marriage with some prince at my father's court. In this he was to be disappointed, for Halum went unmarried and, for all I know, virgin to her grave.

This scheme of bondings allows us a small escape from the constricting solitude in which we of Borthan are expected to live. You must know by now—even if you who read this be a stranger to our planet—that it has long been forbidden by custom for us to open our souls to others. To talk excessively of oneself, so our forefathers believed, leads inevitably to self-indulgence, self-pity and self-corruption; therefore we are trained to keep ourselves to ourselves and, so that the prisoning bands of custom may be all the

more steely, we are prohibited even from using such words as "I" or "me" in polite discourse. If we have problems we settle them in silence; if we have ambitions we fulfill them without advertising our hopes; if we have desires we pursue them in a selfless and impersonal way. To these harsh rules only two exceptions are made. We may speak our hearts freely to our drainers, who are religious functionaries and mere hirelings; and we may, within limits, open ourselves to our bond-kin. These are the rules of the Covenant.

It is permissible to confide almost anything to a bondsister or a bondbrother, but we are taught to observe etiquette in going about it. For example, proper people consider it improper to speak in the first person even to one's bond-kin. It is not done, ever. No matter how intimate a confession we make, we must couch it in acceptable grammar, not in the vulgarities of a common selfbarer.

(In our idiom a *selfbarer* is one who exposes himself to others, by which is meant that he exposes his soul, not his flesh. It is deemed a coarse act and is punished by social ostracism or worse. Selfbarers use the censured pronouns of the gutter vocabulary, as I have done throughout what you now read. Although one is allowed to *bare* one's *self* to one's bond-kin, one is not a *selfbarer* unless one does it in tawdry blurtings of "I" and "me".)

Also we are taught to observe reciprocity in our dealings with bond-kin. That is, we may not overload them with our woes, pouring into their ears a torrential gush of self, while failing to ease them of their own burdens. This is plain civility: the relationship depends on mutuality, and we may make use of them only if we are careful to let them make use of us. Children are often one-sided in their dealings with bond-kin; one may dominate his bondbrother and chatter endlessly at him without pausing to heed the other's woes. But such things usually come into balance early.

**OF** ALL the prohibitions having to do with bonding the most severe is the one against physical relationships with our bond-kin. In sexual matters we are generally quite free, only we dare not do this one thing. This struck at me most painfully. Not that I yearned for Noim, for that has never been my path, nor is it a common one among us; but Halum was my soul's desire and neither as wife nor as mistress could she ever comfort me. Long hours we sat up together, her hand in mine, telling one another things we could tell no one else—and how easy it would have been for me to draw her close, part her garments and join my flesh with hers. I would not attempt it. My conditioning held firm; and, as

I hope to survive long enough to tell you, even after Schweiz and his potion had changed my soul, still did I respect the sanctity of Halum's body, although I was able to enter her in other ways. But I will not deny my desire for her. Nor can I forget the shock I felt when I learned in boyhood that of all Borthan's women only Halum, my beloved Halum, was denied to me.

I was extraordinarily close to Halum in every but the physical way and she was for me the ideal bondsister: open, giving, loving, serene, radiant, adaptable. Not only was she beautiful—creamy-skinned, dark-eyed and dark of hair, slender and graceful—but also she was remarkable within herself, for her soul was gentle and sleek and supple, a wondrous mixture of purity and wisdom. Thinking of her, I see the image of a forest glade in the mountains—black-needled evergreen trees rising close together like shadowy swords springing from a bed of newly fallen snow and a sparkling stream dancing between sun-spattered boulders, everything clean, untainted and self-contained. Sometimes when I was with her I felt impossibly thick and clumsy, a hulking lumbering mountain of dull meat, with an ugly hairy body and stupid ponderous muscles; but Halum had the skill of showing me, with a word, with a laugh, with a wink, that I was being unjust to

myself when I let the sight of her lightness and gaiety lead me to wish I was woman-soft and woman-airy.

On the other side I was equally close to Noim. He was my foil in many ways: slender where I am burly, crafty where I am direct, cautious and calculating where I am rash, bleak of outlook where I am sunny. With him as with Halum I frequently felt awkward, not really in any bodily sense (for, as I have told you, I move well for a man my size) but in my inward nature. Noim, more mercurial than I, livelier, quicker of wit, seemed to leap and cavort where I merely plodded, and yet the prevailing pessimism of his spirit made him appear deeper than I as well as more buoyant. To give myself credit, Noim looked with envy on me just as I did on him. He was jealous of my great strength—furthermore, he confessed that he felt mean-souled and petty when he peered into my eyes. "One sees simplicity and power there," he admitted, "and one is aware that one often cheats, that one is lazy, that one breaks faith, that one does a dozen wicked things daily—and none of these are any more natural to you than dining on your own flesh."

You must understand that Halum and Noim were no bond-kin to one another and were linked only by way of their common relationship to me. Noim had a bondsister of his own, a certain Thirga, and

Halum was bonded to a girl of Manneran, Nald by name. Through such ties the Covenant creates a chain that clasps our society together, for Thirga had a bondsister, too, and Nald a bondbrother—and each of them was bonded in turn on the other side—and so on to form a vast if not infinite series. Obviously one comes in contact often with the bond-kin of one's own bond-kin, though one is not free to assume with them the same privileges one has with those of one's bonding; I frequently saw Noim's Thirga and Halum's Nald, just as Halum saw my Noim and Noim saw my Halum, but there was never anything more than nodding friendship between me and Thirga or me and Nald, while Noim and Halum took to each other with immediate warmth. Indeed I suspected for a time that they might marry one another, which would have been uncommon but not illegal.

Halum now sleeps forever under a stone in Manneran, and Noim has become a stranger to me, perhaps even an enemy to me, and the red sand of the Burnt Lowlands blows in my face as I set down these lines.

**A**FTER my brother Stirron became septarch in Salla, I went, as you know, to the province of Glin. I will not say that I fled to

Glin, for no one openly compelled me to leave my native land—but call my departure a deed of tact. I left in order to spare Stirron the eventual embarrassment of putting me to death, which would have weighed badly upon his soul. One province cannot hold safely the two sons of a late septarch.

Glin was my choice because it is customary for exiles from Salla to go to Glin and also because my mother's family held wealth and power there. I thought, wrongly as it turned out, that I might gain some advantage from that connection.

I was about three moontimes short of the age of thirteen when I took my leave of Salla. Among us that is the threshold of manhood; I had reached almost my present height, though I was much more slender and far less strong than I would soon become and my beard had only lately begun to grow full. I knew something of history and government, something of the arts of warfare, something of the skills of hunting, and I had had some training in the practice of the law. Already I had bedded at least a dozen girls and three times I had known, briefly, the tempests of unhappy love. I had kept the Covenant all my life; my soul was clean and I was at peace with our gods and with my forefathers. In my own eyes at that time I must have seemed hearty, adventurous, capable, honorable and resilient, with

all the world spread before me like a shining highway and the future mine for the shaping. The perspective of thirty years tells me that that young man who left Salla then was also naive, gullible, romantic, overly earnest, conventional and clumsy of mind: quite an ordinary youth, in fact, who might have been skinning seapups in some fishing village had he not had the great good fortune to be born a prince.

The season of my going was early autumn, after a springtime when all Salla had mourned my father and a summer when all Salla had hailed my brother. The harvest had been poor—nothing odd in Salla, where the fields yield pebbles and stones more graciously than they do crops—and Salla City was choked with bankrupt husbandmen, hoping to catch some largesse from the new septarch. A dull hot haze hung over the capital day after day and above it lay the first of autumn's heavy clouds, floating in on schedule from the eastern sea. The streets were dusty; the trees had begun to drop their leaves early, even the majestic firethorns outside the septarch's palace; the dung of the farmers' beasts clogged the gutters. These were poor omens for Salla at the beginning of a septarch's reign and to me it seemed like a wise season for getting out. Even this early, Stirron's temper was fraying and unlucky councilors of state were going off to dungeons. I still was cherished at

court, coddled and complimented, plied with fur cloaks and promises of baronies in the mountains, but for how long, how long? Just now Stirron was troubled with guilt that he had inherited the throne and I had nothing and so he treated me softly, but let the dry summer give way to a bitter winter of famine and the scales might shift; envying me my freedom from responsibility, he might well turn on me. I had studied the annals of royal houses well. Such things had happened before.

Therefore I readied myself for a hasty exit. Only Noim and Halum knew of my plans. I gathered those few of my possessions that I had no wish to abandon, such things as a ring of ceremony bequeathed by my father, a favorite hunting jerkin of yellow leather and a double-cameo amulet bearing the portraits of my bondsister and bondbrother; all my books I relinquished, for one can get more books wherever one goes, and I did not even take the hornfowl spear, my trophy of my father's death-day, that hung in my palace bedchamber. There was to my name a fairly large amount of money and this I handled in what I believed was a shrewd manner. It was all on deposit in the Royal Salla Bank. First I transferred the bulk of my funds to the six lesser provincial banks, over the course of many days. These new accounts were held jointly with Halum and Noim. Halum then proceeded to

make withdrawals, asking that the money be paid into the Commercial and Seafarers Bank of Manneran, for the account of her father Segvord Helalam. If we were detected in this transfer, Halum was to declare that her father had undergone financial reverses and had requested a loan of short duration. Once my assets were safely on deposit in Manneran, Halum asked her father to transfer the money again, this time to an account in my name in the Covenant Bank of Glin. In this zigzag way I got my cash from Salla to Glin without arousing the suspicions of our Treasury officials, who might wonder why a prince of the realm was shipping his patrimony to our rival province of the north. The fatal flaw in all this was that if the Treasury became disturbed about the flow of capital to Manneran, questioned Halum and then made inquiries of her father, the truth would emerge that Segvord prospered and had had no need of the "loan," which would have led to further questions and, probably, to my exposure. But my maneuvers went unnoticed.

Lastly I went before my brother to ask his permission to leave the capital, as courtly etiquette required.

This was a tense affair, for honor would not let me lie to Stirron, yet I dared not tell him the truth. Long hours I spent with Noim, first, rehearsing my deceptions. I

was a slow pupil in chicanery; Noim spat, he cursed, he wept, he slapped his hands together, as time and again he slipped through my guard with a probing question.

"You were not meant to be a liar," he told me in despair.

"No," I agreed, "this one never was meant to be a liar."

**S**TIRRON received me in the northern robing chamber, a dark and somber room of rough stone walls and narrow windows, used mainly for audiences with village chieftains. He meant no offense by it, I think; it was merely where he happened to be when I sent in my equery with word that I wished a meeting. It was late afternoon; a thin greasy rain was falling outside; in some far tower of the palace a carillonneur was instructing apprentices and leaden bell-tones, scandalously awry, came humming through the drafty walls. Stirron was formally dressed: a bulky gray robe of stormshield furs, tight red woolen leggings, high boots of green leather. The sword of the Covenant was at his side, the heavy glittering pendant of office pressed against his breast, rings of title cluttered his fingers and if memory does not deceive me he wore yet another token of power around his right forearm. Only the crown itself was missing from his regalia. I had seen Stirron garbed this way often enough of late, at ceremonies

and meetings of state, but to find him so enveloped in insignia on an ordinary afternoon struck me as almost comical. Was he so insecure that he needed to load himself with such stuff constantly, to reassure himself that he was indeed septarch? Did he feel that he had to impress his own younger brother? Or did he, childlike, take pleasure in these ornaments for pleasure's own sake? No matter which, some flaw in Stirron's character was revealed, some inner foolishness. It astounded me that I could find his amusing rather than awesome. Perhaps the genesis of my ultimate rebellion lies in that moment when I walked in on Stirron in all his splendor and had to fight to hold my laughter back.

Half a year in the septarchy had left its mark on him. His face was gray and his left eyelid drooped, I suppose from exhaustion. He held his lips tightly compressed and stood in a rigid way, one shoulder higher than the other. Though only two years separated us in age, I felt myself a boy beside him and marveled how the cares of office can etch a young man's visage. It seemed centuries since Stirron and I had laughed together in our bed-chambers, whispered all the forbidden words and bared our ripening bodies to one another to make the edgy comparisons of adolescence.

Now I offered formal obeisance to my weary royal brother, cross-

ing my arms over my breast and flexing my knees and bowing my head as I murmured, "Lord septarch, long life be yours."

Stirron was man enough to deflect my formality with a brotherly grin. He gave me a proper acknowledgment of my my greeting, yes, arms raised and palms turned out, but then he turned it into an embrace, swiftly crossing the room and seizing me. Yet there was something artificial about his gesture, as though he had been studying how to show warmth to his brother, and quickly I was released.

He wandered away from me, eyeing a nearby window, and his first words to me were: "A beastly day. A brutal year."

"The crown lies heavy, lord septarch?"

"You have leave to call your brother by his name."

"The strains show in you, Stirron. Perhaps you take Salla's problems too closely to heart."

"The people starve," he said. "Shall one pretend that is a trifling thing?"

"The people have always starved, year upon year," I said. "But if the septarch drains his soul in worry over them—"

"Enough, Kinnall. You presume." Nothing brotherly about the tone now; he was hard put to hide his irritation with me. He was plainly angered that I had so much as noticed his fatigue, though it was

he who had begun our talk with lamenting. The conversation had veered too far toward the intimate. The condition of Stirron's nerves was no affair of mine: it was not my place to comfort him, he had a bondbrother for that. My attempted kindness had been improper and inappropriate. "What do you seek here?" he asked roughly.

"The lord septarch's leave to go from the capital."

He whirled away from the window and glared at me. His eyes, dull and sluggish until this moment, grew bright and harsh and flickered disturbingly from side to side.

"To go? To go where?"

"One wishes to accompany one's bondbrother Noim to the northern frontier," I said as smoothly as I could manage. "Noim pays a call on the headquarters of his father, General Luinn Condorit, whom he has not seen this year since your lordship's coronation, and one is asked to travel northward with him for bondlove and friendship."

"When would you go?"

"Three days hence, if it please the septarch."

"And for how long a stay?" Stirron was virtually barking these questions at me.

"Until the first snow of winter falls."

"Too long. Too long."

"One might be absent then a shorter span," I said.

"Must you go at all, though?"

My right leg quivered shamefully at the knee. I struggled to be calm. "Stirron, consider that one has not left Salla City for so much as an entire day since you assumed the throne. Consider that one cannot justly ask one's bond-brother to journey uncomfortable through the northern hills."

"Consider that you are the heir to the prime septarchy of Salla," Stirron said, "and that if misfortune comes to your brother while you are in the north, our dynasty is lost."

The coldness of his voice, and the ferocity with which he had questioned me a moment earlier, threw me into panic. Would he oppose my going?

I said, "No misfortunes are probable, Stirron, and even so, it would be no large task to return from the north if something befell you. Do you fear usurpation so seriously?"

"One fears everything, Kinnall, and leaves little to chance."

**H**E PROCEEDED then to lecture me on necessary caution, and on the ambitions of those who surrounded the throne, naming as possible traitors a few lords whom I would have placed among the pillars of the realm. As he spoke, going far beyond the strictures of the Covenant in exposing his uncertainties to me, I saw with amaze-

ment what a tortured, terrified man my brother had become in this short time of septarchy; and I realized, too, that I was not going to be granted my leave. He went on and on, fidgeting as he spoke, rubbing his talismans of authority, several times picking up his scepter from where it lay on an ancient wood-topped table, walking to the window and coming back from it, pitching his voice now low and now high as though searching for the best septarchical resonances. I was frightened for him. He was a man of my own considerable size and at that time much thicker in body and greater in strength than I—all my life I had worshiped him and modeled myself upon him—and here he was corroded with terror and committing the sin of telling me about it. Had just these few moontimes of supreme power brought Stirron to this collapse? Was the loneliness of the septarchy that awful for him? On Borthan we are born lonely and lonely we live and lonely we die; why should wearing a crown be so much more difficult than bearing the burdens we inflict upon ourselves each day? Stirron told me of assassins' plots and of revolution brewing among the farmers who thronged the town and even hinted that our father's death had been no accident. I tried to persuade myself that hornfowl could be trained to slay a particular man in a group of thirteen men. I would not swallow the notion. It



appeared that royal responsibilities had driven Stirron mad. I was reminded of a duke some years back who displeased my father, was sent for half a year to a dungeon and tortured each day that the sun could be seen. He had entered prison a sturdy and vigorous figure—when he emerged he was so ruined that he befouled his own clothes with his dung and did not know it. How soon would Stirron be brought to that? Perhaps it was just as well, I thought, that he was refusing me permission to go away, for it might be better that I remain at the capital, ready to take his place if he crumbled beyond repair.

But he amazed me at the finish of his rambling oration; for it had taken him clear across the room to an alcove hung with dangling silver chains. At the end, suddenly bunching the chains and yanking a dozen of them from their mountings, he swung round to face me.

"Give your pledge, Kinnall, that you will come back from the north in time to attend the royal wedding!"

I was doubly pronged. For the last several minutes I had begun to make plans on the basis of staying in Salla City; now I found I could depart after all and was not sure I should, in view of Stirron's deterioration. And then, too, he demanded from me a promise of swift return—and how could I give the septarch such a promise without

lying to him, a sin I was not prepared to commit? So far all that I had told him had been the truth, though only the part of the truth; I *did* plan to travel north with Noim to visit his father, I *would* remain in northern Salla until winter's first snow. How, though, could I set a date for my coming back to the capital?

My brother was due to marry, forty days hence, the youngest daughter of Bryggil, septarch of Salla's southeastern district. It was a cunning match. So far as the traditional order of primacy went, Bryggil stood seventh and lowest in the hierarchy of Salla's septarchs, but he was the oldest, the cleverest and the most respected of the seven, now that my father was gone. To combine Bryggil's shrewdness and stature with the prestige that accrued to Stirron by virtue of his rank as prime septarch would be to cement the dynasty of our family to the throne. And no doubt sons shortly would come marching out of Bryggil's daughter's loins, relieving me of my position as heir apparent: her fertility must have passed the necessary tests and of Stirron's there could be no question, since he had scattered a litter of bastards already all over Salla. I would have certain ceremonial roles to play at the wedding as brother to the septarch.

I had wholly forgotten the wedding. If I skipped out of Salla be-

fore it came about I would wound my brother in a way that saddened me. But if I stayed here, with Stirron in this unstable state, I had no guarantee of being a free man when the nuptial day arrived, or even of still owning my head. Nor was there any sense in going north with Noim if I bound myself to return in forty days. It was a hard choice: to postpone my departure and run the risks of my brother's royal whims, or to leave now, knowing I was taking on myself the stain of breaking a pledge to my septarch.

The Covenant teaches us that we should welcome dilemmas, for it toughens character to grapple with the insoluble and find a solution. In this instance events made a mockery of the Covenant's lofty moral teachings. As I hesitated in anguish, Stirron's telephone summoned him; he snatched its handpiece, jabbed at the scrambler and listened to five minutes of gibberish, his face darkening and his eyes growing fiery. At length he broke the contact and peered up at me as though I were a stranger to him.

"They are eating the flesh of the newly dead in Spoksa," he muttered. "On the slopes of the Kongoroi they dance to demons in hopes of finding food. Insantiy! Insantiy!" He clenched his fists, strode to the window, thrust his face to it, closed his eyes and, I still think, forgot my presence for a time. Again the telephone asked for him. Stirron jerked back like

one who has been stabbed and started toward the machine. Noticing me standing frozen near the door, he fluttered his hands impatiently at me and said, "Go, will you? Off with your bondbrother, wherever you go. This province! This famine! Father, father, father!"

He seized the handpiece. I started to offer a genuflection of parting and Stirron furiously waved me from the room, sending me unpledged and unchecked toward the borders of his realm.

#### IV

**N**OIM and I set forth three days afterward, just the two of us and a small contingent of servants. The weather was bad, for summer's dryness had given way not merely to the thick dreary gray clouds of autumn but to a fore-sampling of winter's heavy rains. "You'll be dead of the mildew before you see Glin," Halum told us cheerfully. "If you don't drown in the mud of the Grand Salla Highway."

She stayed with us, at Noim's house, on the eve of our departure—sleeping chastely apart in the little chamber just under the roof—and joined us for breakfast as we made ready to go. I had never seen her looking lovelier; that morning she wore a bloom of shimmering beauty that cut through the murk of the drizzly

dawn like a torch in a cave. Perhaps what enhanced her so greatly then was that she was about to pass from my life for an unknown length of time and, conscious of my self-inflicted loss, I magnified her attractiveness. She was clad in a gown of delicate golden chain-mesh, beneath which only a gossamer wrap concealed her naked form—and her body, shifting this way and that under its flimsy coverings, aroused in me thoughts that left me drenched in shame. Halum then was in the ripeness of early womanhood and had been for several years; it had already begun to puzzle me that she remained unwed. Though she and Noim and I were of the same age, she had leaped free of childhood before us, as girls will do, and I had come to think of her as older than the two of us, because for a year she had had breasts and the monthly flow while Noim and I had still been without hair on cheek or body. And, while we had caught up to her in physical maturity, she was still more adult in her bearing than my bond-brother or I, her voice more smoothly modulated, her manner more poised, and it was impossible for me to shake off that notion that she was senior sister to us. Who soon must accept some suitor, lest she become overripe and sour in her maidenhood; I was suddenly certain that Halum would marry while I was off hiding

in Glin—and the thought of some sweaty stranger planting babies between her thighs so sickened me that I turned away from her at the table and lurched to the window to gulp the humid air into my throbbing lungs.

The servants waited in the street. The groundcars were ready. Halum embraced us, clasping Noim first, then me, for I was the one who would not be returning and that called for a longer farewell. When she came into my arms I was stunned by the intensity with which she offered herself: her lips to my lips, her belly to my belly, her breasts crushed against my chest. On tiptoes she strained to press her body into mine and for a moment I felt her trembling, until I began myself to tremble. It was not a sisterly kiss and certainly not a bondsisterly kiss; it was the passionate kiss of a bride sending her young husband off to a war from which she knows there is no coming back.

I was singed by Halum's sudden fire. I felt as though a veil had been ripped away and some Halum I had not known before had flung herself against me, one who burned with the needs of the flesh, one who did not mind revealing her forbidden hunger for a bond-brother's body. Or did I imagine those things in her? It seemed to me that for a single protracted instant Halum repressed nothing and allowed her arms and lips to

tell me the truth about her feelings; but I could not respond in kind. I had trained myself too well in the proper attitudes toward one's bondsister and I was distant and cool as I clasped her. I may even have thrust her back a little, shocked by her forwardness. And, as I say, there may have been no forwardness at all except in my overwrought mind, but only legitimate grief at a parting. In any event the intensity went quickly from Halum; her embrace slackened and she released me. She appeared downcast and chilled, as if I had rebuffed her cruelly by being so prim when she was giving so much.

"Come, now," Noim said impatiently and, trying somehow to rescue the situation, I lifted Halum's hand and touched my palm lightly to her cool palm. I smiled an awkward smile and she smiled even more awkwardly. Perhaps we would have said a stumbling word or two, but Noim caught me by the elbow and stolidly led me outside to begin my journey away from my homeland.

**I** INSISTED on opening myself to a drainer before leaving Salla City. I had not planned on doing so and it irritated Noim that I took the time for it; but an uncontrollable yearning for the comforts of religion rose up in me as we neared the outskirts of the capital.

We had been traveling almost an hour. The rain had thickened and gusty winds slammed it against the windscreens of our groundcars, so that cautious driving was in order. The cobbled streets were slippery. Noim drove one of the cars, I sitting sullenly beside him; the other, with our servants, followed close behind. The morning was young and the city still slept. Each passing street was a surgery to me, for a segment of my life was ripped off by it: there goes the palace compound, there go the spires of the House of Justice, there the university's great gray blocky buildings, there the godhouse where my royal father brought me into the Covenant, there the Museum of Mankind that I visited so often with my mother to stare at the treasures from the stars. Circling through the fine residential district that borders the Skangen Canal, I even spied the ornate townhouse of the Duke of Kongoroi, on whose handsome daughter's silken bedsheets I had left my virginity in a clammy puddle, not too many years before. In this city I had lived all my life and I might never see it again; my yesterdays were washing away, like the topsoil of Salla's sad farms under the knives of the winter rains. Since boyhood I had known that one day my brother would be septarch and this city would cease to have a place for me, but yet I had denied that to

myself, saying, *It will not happen soon, perhaps it will not happen at all.* And my father lay dead in his firethorn coffin; my brother crouched beneath the awful weight of his crown and I was fleeing from Salla before my life had fairly begun. And such a mood of self-pity came over me that I did not dare even to speak to Noim, though what is a bondbrother for if not to ease one's soul? And when we were driving through the ramshackle streets of Salla Old Town, not far from the city walls, I spied a dilapidated godhouse and said to Noim, "Pull up at the corner here. One must go within to empty himself."

Noim, fretful, did not want to spare the time and made as if to drive on. "Would you deny one the godright?" I asked him hotly and only then, simmering and cross, did he halt the car and back it up to let me out by the godhouse.

Its face was worn and peeling. An inscription beside the door was illegible. The pavement before it was cracked and tilted. Salla Old Town has a pedigree of more than a thousand years; some of its buildings have been continuously inhabited since the founding of the city, though most are in ruins, for the life of that district ended, in effect, when one of the medieval septarchs chose to move his court to our present palace atop Skan-gen Hill, much to the south. At night Salla Old Town comes alive

with pleasure-seekers, who guzzle the blue wine in cellar cabarets, but at this misty hour it was a grim place. Blank stone walls faced me from every building: we have a fashion of making mere slits serve for windows in Salla, but here they carried it to an extreme. I wondered if the godhouse could have a scanning machine in working order to watch my approach. Yes, as it happened. When I neared the godhouse door it swung partly open and a scrawny man in drainer's robes looked out. He was ugly, of course. Who ever saw a handsome drainer? It is a profession for the ill-favored. This one had greenish skin, heavily pocked, and a rubbery snout of a nose and a dimness in one eye: standard for his trade. He gave me a fishy stare and, by his wariness, seemed to be regretting having opened the door.

"The peace of all gods be on you," I said. "Here is one in need of your craft."

He eyed my costly costume, my leather jerkin and my heavy jewelry, studied the size and swagger of me and evidently concluded I was some young bully of the aristocracy out to stir trouble in the slums.

"It is too early in the day," he said uneasily. "You come too soon for comfort."

"You would not refuse a sufferer."

"It is too early."

"Come, come, let one in. A troubled soul stands here."

**H**E YIELDED, as I knew he must, and with many a twitch of his longnosed face he admitted me. Within there was the reek of rot. The old woodwork was impregnated with the damp, the draperies were moldering, the furniture had been gnawed by insects. The lighting was dim. The drainer's wife, as ugly as the drainer himself, skulked about. He led me to his chapel, a small sweaty room off the living-quarters, and left me kneeling by the cracked and yellowing mirror while he lit the candles. He robed himself and finally came to me where I kneeled.

He named his fee. I gasped.

"Too much by half," I said.

He reduced it by a fifth. When I still refused, he told me to find my priesting elsewhere, but I would not rise and, grudgingly, he brought the price of his services down another notch. Still it was probably five times what he charged the folk of Salla Old Town for the same benefit, but he knew I had money and, thinking of Noim fuming in the car, I could not bring myself to haggle.

"Done," I said.

Next he brought me the contract. I have said that we of Borthan are suspicious people; have I indicated how we rely on contracts? A man's word is merely bad

air. Before a soldier beds a whore they come to the terms of their bargain and scrawl it on paper. The drainer gave me a standard form, promising me that all I said would be held in strictest confidence, the drainer merely acting as intermediary between me and the god of my choice and I, for my part, pledging that I would hold the drainer to no liability for the knowledge he would have of me, that I would not call him as witness in a lawsuit or make him my alibi in some prosecution, et cetera, et cetera. I signed. He signed. We exchanged copies and I gave him his money.

"Which god would you have preside here?" he asked.

"The god who protects travelers," I told him. We do not call our gods aloud by their names.

He lit a candle of the appropriate color - pink - and put it beside the mirror. By that it was understood that the chosen god would accept my words.

"Behold your face," the drainer said. "Put your eyes to your eyes."

I stared at the mirror. Since we shun vanity, it is not usual to examine one's face except on these occasions of religion.

"Open now your soul," the drainer commanded. "Let your griefs and dreams and hungers and sorrows emerge."

"A septarch's son it is who flees his homeland," I began and at once the drainer jerked to atten-

tion, impaled by my news. Though I did not take my eyes from the mirror, I guessed that he was scrabbling around to look at the contract and see who had signed it. "Fear of his brother," I continued, "leads him to go abroad, but yet he is sore of soul as he departs."

I went on in that vein for some while. The drainer made the usual interjections every time I faltered, prying words out of me in his craft's cunning way. But shortly there was no need for such midwivery, for the words gushed freely. I told him of my desire for my bondsister and how her embrace had unsettled me; I told him how close I had come to lying to Stirron; I confessed that I would miss the royal wedding and give my brother injury thereby; I admitted several small sins of self-esteem, such as anyone commits daily.

The drainer listened.

We pay them to listen and to do nothing but listen, until we are drained and healed. Such is our holy communion that we lift these toads from the mud, set them up in their godhouses and buy their patience with our money. It is permitted under the Covenant to say anything to a drainer, even if it is drivel, even if it is a shameful catalog of throttled lusts and hidden filth. We may bore a drainer as we have no right to bore our bondkin, for it is the drainer's obligation

by contract to sit with the patience of the hills as we speak of ourselves. We need not worry what the drainer's problems may be, nor what he thinks of us, nor whether he would be happier doing something else. He has his calling and he takes his fee and he must serve those who have need of him. A time was when I felt it was a miraculously fine scheme to give us drainers in order that we might rid our hearts of pain. Too much of my life was gone before I realized that to open one's self to a drainer is no more comforting than to make love to one's own hand; there are better ways of loving, there are happier ways of opening.

But I did not know that then and I squatted by the mirror, getting the best healing that money could buy. Whatever residue of wrongness was in my soul came forth, syllable smoothly following syllable, the way sweet liquor will flow when one taps the thorny flanks of the gnarled and repellent-looking flesh-trees that grow by the Gulf of Sumar. As I spoke the candles caught me in their spell and by the flickering of them I was drawn into the curved surface of the mirror so that I was drawn out of myself; the drainer was a mere blur in the darkness, unreal, unimportant, and I spoke now directly to the god of travelers, who would heal me and send me on my way. And I believed that this was so. I will not say that I imagined a

literal god-place where our deities sit on call to serve us, but I had then an abstract and metaphorical understanding of our religion by which it seemed to me, in its way, as real as my right arm.

My flow of words halted and the drainer made no attempt to renew the outpour. He murmured the phrases of absolution, snuffed the god-candle between two fingers and rose to doff his robes. Still I kneeled, weak and quivering from my draining, lost in reveries. I felt cleansed and purified, stripped of my soul's grit and debris and, in the music of that moment, was only dimly aware of the squalor about me. The chapel was a place of magic and the drainer was aflame with divine beauty.

"Up," he said, nudging me with the tip of his sandal. "Out. Off about your journeys."

The sound of his splintery voice doused all the wonder. I stood up, shaking my head to cure it of its new lightness, while the drainer pushed me into the corridor. He was no longer afraid of me, that ugly little man, even though I might be a septarch's son and could kill him with one wad of my spittle, for I had told him of my cowardice, of my forbidden hunger for Halum, of all the cheapnesses of my spirit. And that knowledge reduced me in his eyes: no man newly drained can awe his drainer.

The rain was even worse when I

left the building. Noim sat scowling in the car, his forehead pressed to the steering stick. He looked up and tapped his wrist to tell me I had dallied too long at the godhouse.

"Feel better now that your bladder's empty?" he asked.

"What?"

"That is, did you have a good soul-pissing in there?"

"A foul phrase, Noim."

"One grows blasphemous when his patience is extended too far."

He kicked the starter and we rolled forward. Shortly we were at the ancient walls of Salla City, by the noble tower-bedecked opening known as Glin Door, which was guarded by four sour-faced and sleepy warriors in dripping uniforms. They paid no heed to us. Noim drove through the gate and past a sign welcoming us to the Grand Salla Highway. Salla City dwindled swiftly behind us; northward we rushed toward Glin.

**T**HE Grand Salla Highway passes through one of our best farming districts, the rich and fertile Plain of Nand, which each spring receives a gift of topsoil stripped from the skin of West Salla by our busy streams. At that time the septarch of the Nand district was a notorious coinclutcher and, thanks to his penury, the highway was in poor repair there, so, as Halum had predicted in jest, we



were hard put to wallow through the mud that clogged the road. It was good to finish with Nand and enter North Salla, where the land is a mixture of rock and sand and the people live on weeds and on scuttling things that they take from the sea. Groundcars are unusual sights in North Salla and twice we were stoned by hungry and sullen townsfolk, who found our mere passage through their unhappy place an insult. But at least the road was free of mud.

Noim's father's troops were stationed in extreme North Salla, on the lower bank of the River Huish. This is the grandest of Velada Borthan's rivers. It begins as a hundred trifling brooks trickling down the eastern slopes of the Huishtors in the northern part of West Salla; these brooks merge in the foothills to become a swift stream, gray and turbulent, that rushes through a narrow granite canyon marked by six great step-like plunges. Emerging from those wild cascades onto its alluvial plain, the Huish proceeds more serenely on a northeastern course toward the sea, growing wider and wider in the flatlands and splitting ultimately so that, at its broad delta, it gives itself to the ocean through eight mouths. In its rapid western reaches the Huish forms the boundary between Salla and Glin; at its placid easternmost end it divides Glin from Krell.

For all its length the great river

is unbridged and one might think little need exists to fortify its banks against invaders from the far side. But many times in Salla's history have the men of Glin crossed the Huish by boat to make war and just as many times have we of Salla gone to ravage Glin, nor is the record of neighborliness between Glin and Krell any happier. So all along the Huish sprout military outposts, and generals like Luinn Condorit consume their lives studying the riverfogs for glimpses of the enemy.

I stayed a short while at Noim's father's camp. The general was not much like Noim, being a large-featured, heavy man whose face, eroded by time and frustration, was like a contour map of bouldery North Salla. Not once in fifteen years had there been any significant clash along the border he guarded and I think that idleness had chilled his soul; he said little, scowled often, turned every statement into a bitter grumble and retreated speedily from conversation into private dreams. They must have been dreams of war; no doubt he could not glance at the river without wishing that it swarmed with the landing-craft of Glin.

A dull time we had of it there. Noim was bound by filial ties to call upon his father, but they had nothing to say to one another and the general was a stranger to me. I had told Stirron I would stay with

Noim's father until the first snow of winter fell and I was true to my word, yet, luckily it was no lengthy visit I made; winter comes early in the north. On my fifth day there white sprinkles fluttered down and I was released from my self-imposed pledge.

Ferries, shuttling between terminals in three places, link Salla to Glin, except in time of war. Noim drove me to the nearest terminal one black dawn and solemnly we embraced and made our farewells. I said I would send my address, when I had one in Glin, so that he could keep me informed of doings in Salla. He promised to look after Halum. We talked vaguely of when he and she and I would meet again; perhaps they would visit me in Glin next year, perhaps we would all three go on holiday in Manneran. We made these plans with little conviction in our voices. Then we had no words left.

The ferry beckoned me with a bellow of its horn.

I clasped Noim's arm and we made farewells, hurriedly. The last thing I said to him was, "When you see the septarch, tell him that his brother loves him." Then I went aboard.

The crossing was too quick. Less than an hour and I found myself on the alien soil of Glin. The immigration officials examined me brusquely, but they thawed at the sight of my passport, bright

red to denote my place in the nobility, with a golden stripe to show that I was of the septarch's family. At once I had my visa, good for an indefinite stay. Such officials are a gossipy sort; beyond question they were on the telephone the instant I left them, sending word to their government that a prince of Salla was in the land--and I suppose that not much later that bit of information was in the hands of Salla's diplomatic representatives in Glin, who would relay it to my brother for his displeasure.

Across the way from the customs shed I came upon a branch of the Covenant Bank of Glin and exchanged my Salla money for the currency of the northerners. With my new funds I hired a driver to take me to the capital city, which they call Glain, half a day's journey north of the border.

The road was narrow and winding and traversed a bleak countryside where winter's touch had long ago pulled the leaves from the trees. Dirty snow was banked high. Glin is a frosty province. It was settled by men of a puritan nature, who found the living too easy in Salla and felt that if they remained there they might be tempted away from the Covenant; failing to reform our forefathers into greater piety, they left, crossing the Huish by rafts to hack out a livelihood in the north. Hard folk for a hard land; however poor the

farming is in Salla it is twice as unrewarding in Glin; there people live mainly by fishing, by manufacturing, by the jugglements of commercial dealings and by piracy. But that my mother had sprung from Glin, I would never have chosen it for my place of exile. Not that I gained anything from my family ties.

## V

**N**IGHTFALL saw me in Glain. A walled city it is, like Salla's capital, but otherwise not much like it. Salla City has grace and power; its buildings are made of great blocks of substantial stone, black basalt and rosy granite quarried in the mountains, and its streets are wide and sweeping, affording noble vistas and splendid promenades. Our custom of letting narrow slits stand in place of true windows apart, Salla City is an open, inviting place, the architecture of which announces to the world the boldness and self-sufficiency of its citizens. But that dismal Glain! Oh!

Glain is fashioned of scruffy yellow brick, here and there trimmed with miserable poor pink sandstone that rubs to particles at a finger's nudge. It has no streets, only alleyways; the houses jostle one another as if afraid that some interloper may try to slip between them if they relax their guard. An avenue in Glain would

not impress a gutter in Salla. And the architects of Glain have created a city fit only for a nation of drainers, since everything is lopsided, awry, uneven and coarse. My brother, who had once been to Glain on a diplomatic errand, had described the place to me, but I put his harsh words off to mere patriotic prejudice; now I saw that Stirron had been too kind.

Nor were the folk of Glain more lovely than their city. On a world where suspicion and secrecy are godly virtues one expects to find charm in short supply; yet I found the Glainish virtuous beyond all necessity. Dark clothes, dark frowns, dark souls, closed and shrunken hearts. Their speech itself displays their constipation of spirit. The language of Glin is the same as that of Salla, though the northerners have pronounced accents, clipping their syllables and shifting their vowels. That did not disturb me, but their syntax of self-effacement did. My driver, who was not a city man and therefore seemed almost friendly, left me at a hostelry where he thought I would have kind treatment.

I entered and said, "One would have a room for tonight and for some days beyond this one, perhaps."

The innkeeper stared balefully at me as if I had said, "I would have a room --" or something equally filthy. Later I discovered that even our usual polite cir-

cumlocation seems too vain for a northerner; I should not have said, "One would have a room—" but rather, "Is there a room to be had?" At a restaurant it is wrong to say, "One will dine on thus and thus—" but rather, "These are the dishes that have been chosen." And so on and so on, twisting everything into a cumbersome passive form to avoid the sin of acknowledging one's own existence.

For my ignorance the innkeeper gave me his meanest room and charged me twice the usual tariff. By my speech I had branded myself a man of Salla; why should he be courteous? But in signing the contract for my night's lodgings I had to show him my passport, which made him gasp when he saw that he was host to a visiting prince; he softened more than a little, asking me if I would have wine sent to my room, or maybe a buxom Glainish wench. I took the wine but declined the wench, for I was very young and overly frightened of the diseases that might lurk in foreign loins. That night I sat alone in my room, watching snowflakes drowning in a murky canal below my window and feeling more isolated from humanity than ever before, ever since.

**O**VER a week passed before I found the courage to call upon my mother's kin. I strolled the city

for hours every day, keeping my cloak wrapped close against the winds and marveling at the ugliness of all I beheld, people and structures. I located the embassy of Salla and lurked outside it, not wishing to go in but merely cherishing the link to my homeland that the squat grim building provided. I bought heaps of cheaply printed books and read far into the night to learn something of my adopted province: there was a history of Glin, a guidebook to the city of Glain and an interminable epic poem dealing with the founding of the first settlements north of the Huish and much else. I dissolved my loneliness in wine—not the wine of Glin, for none is made there, but rather the good sweet golden wine of Manneran, that they import in giant casks. I slept poorly. One night I dreamed that Stirron had died of a fit and a search was being made for me. Several times in my sleep I saw the hornfowl strike my father dead; this is a dream that still haunts me, coming twice or thrice a year. I wrote long letters to Halum and Noim and tore them up, for they stank of self-pity. I wrote one to Stirron, begging him to forgive me for fleeing, and tore that up too. When all else failed I asked the innkeeper for a wench. He sent me a skinny girl a year or two older than I, with odd large breasts that dangled like inflated rubber bags.

"It is said you are a prince of Salla," she declared coyly, lying down and parting her thighs.

Without replying I covered her and she wriggled her hips so fiercely that the end came for me within half a moment. I was angered at myself and turned my wrath on her. She ran from my room still naked, terrified more, I think, by my obscenities than by my wrath.

I soaped myself for an hour afterward. In my naivete I feared that the innkeeper would evict me for speaking vulgarly to her, but he said nothing. Even in Glin, one need not be polite to whores.

I realized that there had been a strange pleasure in shouting those words at her. I yielded to curious reveries of fantasy, in which I imagined the big-breasted slut naked on my bed, while I stood over her crying, *!! !! !! !! !!* Two nights later, I asked the innkeeper for another wench.

Thus I spent my patrimony in the capital of puritan Glin, wenching and drinking and loitering. When the stench of my own idleness offended me I put down my timidity and went to see my Glainish relatives.

My mother had been a daughter of a prime septarch of Glin; he was dead, as was his son and successor; now his son's son, Truis, my mother's nephew, held the throne. It seemed too forward to me to go seeking preferment from my

royal cousin directly. Truis of Glin would have to weigh matters of state as well as matters of kinship and might not want to aid the runaway of Salla's prime septarch, lest it lead him into friction with Stirron. But I had an aunt, Nioll, my mother's younger sister, who had often been in Salla City in my mother's lifetime and who had held me fondly when I was a babe; would she not help me?

She had married power to power. Her husband was the Marquis of Huish, who held great influence at the septarch's court, and also—for in Glin it is not thought unseemly for the nobility to dabble in commerce—controlled his province's wealthiest factor-house. These factor-houses are something akin to banks, but of another species; they lend money to brigands and merchants and lords of industry, only at ruinous rates and always taking a slice of ownership in any enterprise they aid; thus they insinuate their tentacles into a hundred organizations and attain immense leverage in economic matters. In Salla the factor-houses were forbidden a century ago, but in Glin they thrive almost as a second government. I had no love for the system, but I preferred joining it to begging.

Some inquiries at the inn gained me directions to the palace of the marquis. By Glainish standards it was an imposing structure of three

interlocking wings beside a mirror-smooth artificial lake in the aristocrats' sector of the city. I made no attempt to talk my way inside; I had come prepared with a note, informing the marquise that her nephew Kinnall, the septarch's son of Salla, was in Glain and wished the favor of an audience; he could be found at such-and-such a hostelry. I returned to my lodgings and waited—and on the third day the innkeeper, popeyed with awe, came to my room to tell me I had a visitor in the livery of the Marquis of Huish. Nioll had sent a car for me; I was taken to her palace, which was far more lavish within than without, and she received me in a great hall cunningly paneled with mirrors set at angles to other mirrors to create an illusion of infinity.

**S**HE had aged greatly in the six or seven years I last had seen her, but my amazement at her white hair and furrowed face was swallowed up in her astonishment over my transformation from tiny child to hulking man in so short a time. We embraced in the style of Glin, fingertips to fingertips; she offered condolences on the death of my father and apologies for not having attended Stirron's coronation; then she asked me what brought me to Glin. I explained and she

showed no surprise. Did I propose to dwell here permanently? I did, I said. And how would I support myself? By working in the factor-house of her husband, I explained, if such a position could be procured for me. She did not act as though she found my ambition unreasonable, but merely asked if I had any skills that might recommend me to the marquis. To this I replied that I had been trained in the law codes of Salla (not mentioning how incomplete my training was) and might be of value in the factor-house's dealings with that province; also, I said, I had connections of bonding to Segvord Helalam, High Justice of the Port in Manneran, and could serve the firm well in its Manneran business; lastly, I remarked, I was young and strong and ambitious and would place myself wholly in the service of the factor-house's interests, for our mutual advantage. These statements seemed to sit smoothly with my aunt and she promised to gain for me an interview with the marquis himself. I left her palace much pleased with my prospects.

Several days later came word to the hostelry that I should present myself at the offices of the factor-house. My appointment, however, was not with the Marquis of Huish; rather, I was to see one of his executives, a certain Sisgar. I should have taken that as an omen. This man was smooth to the point

of oiliness, with a beardless face and no eyebrows and a bald head that looked as if it had been waxed. He wore a dark green robe that was at once properly austere and subtly ostentatious. He questioned me briefly about my training and experience, discovering in some ten queries that I had had little of the former and none of the latter; but he exposed my failings in a gentle and amiable way and I assumed that despite my ignorance my high birth and kinship to the marquise would gain me a post. Alas for complacency! I had begun to hatch a dream of climbing to great responsibilities in this factor-house when I caught with only half an ear the words of Sisgar, telling me, "Times are hard, as surely your grace comprehends, and it is unfortunate that you come to us at a time when retrenching is necessary. The advantages of giving you employment are many, yet the problems are extreme. The marquis wishes you to know that your offer of service was greatly appreciated and it is his hope to bring you into the firm when economic conditions permit." With many bows and a pleasant smile of dismissal he drove me from his office and I was on the street before I realized how thoroughly I had been destroyed. They could give me nothing, not even a fifth assistant clerkship in some village office! How was this possible? I nearly rushed back

within, planning to cry. *This is a mistake—you deal with your septarch's cousin here—you reject the nephew of the marquise!* But they knew those things and yet they shut their doors to me. When I telephoned my aunt to express my shock I was told that she had gone abroad to pass the winter in leafy Manneran.

**E**VENTUALLY what had occurred became clear to me. My aunt had spoken of me to the marquis and the marquis had conferred with the septarch Truis, who, concluding that it might embarrass him with Stirron to allow me any kind of employ, instructed the marquis to turn me away. In my fury I thought of going straight to Truis to protest, but I saw the futility of that soon enough and, since my protector, Nioll, had plainly gone out of Glin to shake herself free of me I knew there was no hope in that direction. I was alone in Glain with the winter coming on and held no position in this alien place, where my lofty birth was worse than useless to me.

Harder blows followed.

Presenting myself at the Covenant Bank of Glin one morning to withdraw funds for living expenses, I learned that my account had been sequestered at the request of the Grand Treasurer of Salla, who was investigating the possibility of an illegal transfer of

capital out of that province. By blustering and waving my royal passport about, I managed to break loose enough money for seven days' food and lodging, but the rest of my savings was lost to me, for I had no stomach for the kind of appeals and maneuvers that might free it.

Next I was visited at my hostelry by a diplomat of Salla, a jackal of an undersecretary who reminded me, with many a genuflection and formula of respect, that my brother's wedding would shortly take place and I was expected to return and serve as a ring-linker. Knowing that I would never leave Salla City again if ever I gave myself into Stirron's hands, I explained that urgent business required me to remain in Glain during the season of the nuptials and asked that my deep regrets be conveyed to the septarch. The undersecretary received this with professional grace, but it was not hard for me to detect the savage gleam of pleasure beneath his outer mask: I was buying me trouble, he was telling himself, and he would gladly help me close the contract.

On the fourth day thereafter my innkeeper came to tell me that I could no longer stay at the hostelry, for my passport had been revoked and I had no legal status in Glin.

This was an impossibility. A royal passport such as I carried is granted for life and is valid in every

province of Velada Borthan except in times of war; and there was no war at the moment between Salla and Glin. The innkeeper shrugged away my words; he showed me his notice from the police, ordering him to evict his illegal alien, and he suggested that if I had objections I should take the matter up with the appropriate bureau of the Glinish civil service. I regarded filing such an appeal as unwise. My eviction had not come about by accident and should I appear at any government office I was likely to find myself arrested and hustled across the Huish into Stirron's grasp forthwith.

Seeing such an arrest as the most probable next development, I wondered how to elude the government agents. Now I sorely felt the absence of my bondbrother and bondsister, for where else could I turn for help and advice? No where in Glin was there anyone to whom I might say, *One is frightened, one is in grave peril, one asks assistance of you.* Everyone's soul was walled against me by stony custom. In all the world were only two whom I could regard as confidants and they were far away. I must find my own salvation.

I would go into hiding, I decided. The innkeeper granted me a few hours to prepare myself. I shaved my beard, traded my royal cloak for the dim rags of another



lodger nearly my height and arranged the pawn of my ring of ceremony. My remaining possessions I bundled together to serve as a hump on my back, and I hobbled out of the hostelry doubled up, with one eye sealed shut and my mouth twisted far around to one side. Whether it was a disguise that could have fooled anyone, I cannot say; but no one waited to arrest me, and thus uglified I walked out of Glain under a cold, thin rain that soon turned to snow.

## VI

**O**UTSIDE the city's northwestern gate (for it was there my feet had taken me) a heavy truck came rumbling by me and its treads rolled through a pool of half-frozen slush, spraying me liberally. I halted to scrape the chilly stuff from my leggings; the truck halted, too, and the driver clambered down, exclaiming. "There is cause for apology here. It was not intended to douse you so!"

This courtesy so astounded me that I stood to my full height and let the distortions slip from my features. Evidently the driver had thought me a feeble, bent old man; he showed amazement at my transformation and laughed aloud. I knew not what to say.

Into my gaping silence he declared, "There is room for one to

ride, if you have the need or the whim."

Into my mind sprang a bright fantasy: he would drive me toward the coast, where I would sign on aboard a merchant vessel bound for Manneran, and in that happy tropical land I would throw myself on the mercies of my bondsister's father, escaping all this harassment.

"Where are you bound?" I asked.

"Westward, into the mountains."

So much for Manneran. I accepted the ride all the same. He offered me no contract of defined liabilities, but I let that pass. For some minutes we did not speak; I was content to listen to the slap of the treads on the snowy road and think of the distance growing between myself and the police of Glain.

"Outlander, are you?" he asked at last.

"Indeed." Fearing that some alarm might be out for a man of Salla, I chose belatedly to adopt the soft slurred speech of southern folk that I had learned from Halum, hoping he would come to believe that I had not spoken first to him with Sallan accents. "You travel with a native of Manneran, who finds your winter a strange and burdensome thing."

"What brought you north?" he asked.

"The settlement of one's

mother's estate. She was a woman of Glain."

"Did the lawyers treat you well, then?"

"Her money melted in their hands, leaving nothing."

"The usual story. You're short of cash, eh?"

"Desitute," I admitted.

"Well, well, one understands your situation, for one has been there oneself. Perhaps something can be done for you."

I realized from his phrasing, from his failure to use the Glinish passive construction, that he, too, must be an outlander. Swinging round to face him, I asked, "Is one right that you likewise are from elsewhere?"

"This is true."

"Your accent is unfamiliar. Some western province?"

"Oh, no, no."

"Not Salla, then?"

"Manneran," he said and burst into hearty laughter. He covered my shame and confusion by telling me, "You do the accent well, friend. But you needn't make the effort longer."

"One hears no Manneran in your voice," I mumbled.

"One has lived long in Glin," he said, "and one's voice is a soup of inflections."

I had not fooled him for a moment, but he made no attempts to penetrate my identity and seemed not to care who I might be or where I came from. We talked

easily a while. He told me that he owned a lumber mill in western Glin, midway up the flanks of the Huishtors where the tall yellow-needled honey-trees grow; before we had driven much farther along he was offering me a job as a logger in his camp. The pay was poor, he said, but one breathed clean air there, government officials were never seen and such things as passports and certificates of status did not matter.

**O**F COURSE I accepted. His camp was beautifully situated above a sparkling mountain lake which never froze, for it was fed by a warm spring whose source was said to be deep beneath the Burnt Lowlands. Tremendous ice-topped Huishtor peaks hung above us and not far away was Glin Gate, the pass through which one goes from Glin to the Burnt Lowlands, crossing a bitter corner of the Frozen Lowlands on the way. He had a hundred men in his employ, rough and foul-mouthed, forever shouting "I" and "me" without shame, but they were honest and hardworking men and I had never been close to their sort before. My plan was to stay there through the winter, saving my pay, and go off to Manneran when I had earned the price of my passage. Some news of the outer world reached the camp from time to time, though, and I learned in this way that the Glinish authorities were seeking a

certain young prince of Salla, who was believed to have gone insane and was wandering somewhere in Glin; the septarch Stirron urgently wished the unhappy young man to be returned to his homeland for the medical care he so desperately needed. Suspecting that the roads and ports would be watched, I extended my stay in the mountains through the spring and, my caution deepening, I stayed the summer also. In the end I spent something more than a year there.

It was a year that changed me greatly. We worked hard, felling the huge trees in all weathers, stripping boughs, feeding them to the mill. Long, tiring days they were, and chilly ones—but followed by plenty of hot wine at night and every tenth day a platoon of women were brought in from a nearby town to amuse us. My weight increased by half again, all of it hard muscle, and I grew taller until I surpassed the tallest logger in the camp and the others made jokes about my size. My beard came in full and the planes of my face changed as the plumpness of youth went from me. I found the loggers more likable than the courtiers among whom all my prior days had been passed. Few of them were able even to read and of polite etiquette they knew nothing, but they were cheerful and easy-spirited men, at home in their own bodies. I would not have you think that because they talked in “I”

and “me” they were open-hearted and given to sharing of confidences; they kept the Covenant in that respect and might even have been more secretive than educated folk about certain things. Yet they seemed more sunny of soul than those who speak in passives and impersonal pronouns and perhaps my stay among them planted in me that seed of subversion, that understanding of the Covenant’s basic wrongness, which the Earthman Schweiz later guided into full flowering.

I told them nothing of my rank and origin. They could see for themselves, by the smoothness of my skin, that I had not done much hard labor in my life and my way of speaking marked me as an educated man, if not necessarily one of high birth. But I offered no revelations of my past and none were sought. All I said was that I came from Salla, since my accent marked me as Sallan anyway; they granted me the privacy of my history. My employer, I think, guessed early that I must be the fugitive prince whom Stirron sought, but he never queried me about that. For the first time in my life, then, I had an identity apart from my royal status. I ceased to be Lord Kinnall, the septarch’s second son, and was only Darival, the big logger from Salla.

From that transformation I learned much. I had never played one of your swaggering, bullying

young nobles; being a second son instills a certain humility even in an aristocrat. Yet I could not help feeling set apart from ordinary men. I was waited on, bowed to, served and pampered; men spoke softly to me and made formal gestures of respect even when I was a child. I was, after all, the son of a septarch, that is to say a king, for septarchs are hereditary rulers and thus are part of mankind's procession of kings, a line that goes back to the dawn of human settlement on Borthan and beyond, back across the stars to Earth itself, to the lost and forgotten dynasties of the masked and painted chieftains enthroned in prehistoric caves. And I was part of that line, a man of royal blood, somehow superior by circumstance of birth. But in this logging camp in the mountains I came to understand that kings are nothing but men set high. The gods do not anoint them, but rather the will of men, and men can strip them of their lofty rank; if Stirron were to be cast down by insurrection and in his place that loathsome drainer from Salla Old Town became septarch, would not the drainer then enter that mystic procession of kings and Stirron be relegated to the dust? And would not that drainer's sons become blood-proud, even as I had been, although their father had been nothing for most of his life and their grandfather less than that? I know, I know, the sages would say

that the kiss of the gods had fallen upon that drainer, elevating him and all his progeny and making them forever sacred, yet as I felled trees on the slopes of the Huish-tors I saw kingship with clearer eyes and, having been cast down by events myself, realized that I was no more than a man among men and always had been. What I would make of myself depended on my natural gifts and ambitions, not upon the accident of rank.

**S**O REWARDING was that knowledge and the altered sense of self it brought me, that my stay in the mountains ceased to seem like an exile, became more like a vocation. My dreams of fleeing to a soft life in Manneran left me and, even after I had saved more than enough to pay my passage to that land, I found myself with no impulse to move onward. It was not fear of arrest that kept me among the loggers, but rather a love of the crisp clear cold Huish-tor air and of my arduous new craft and of the rough but genuine men among whom I dwelled. Therefore I stayed on, through summer and into autumn, and welcomed the coming of a new winter and gave no thought to going.

I might be there yet, only I was forced into flight. One woeful winter afternoon, with the sky like iron and the threat of a blizzard over us like a fist, they brought the

whores up from town for our regularly appointed night of frolic and this time there was among them a newcomer whose voice announced her place of birth to be Salla. I heard her instantly as the women came cavorting into our hall of sport, and would have crept away, but she spied me and gasped and cried out on the spot: "Look you there! For sure that is our vanished prince!"

I laughed and tried to persuade everyone that she was drunk or mad, but my scarlet cheeks gave me the lie and the loggers peered at me in a new way. A prince? A prince? Was it so? They whispered to one another, nudging and winking. Recognizing my peril, I claimed the woman for my own use and drew her aside, and when we were alone I insisted to her she was mistaken: I am no prince, I said, but only a common logger.

She would not have it.

"The Lord Kinnall marched in the septarch's funeral procession," she said, "and this one beheld him with these eyes. And you are he!"

The more I protested, the more convinced she was. There was no shifting her mind.

Late that night, when the revelry had ended, my employer came to me, solemn and uneasy. "One of the girls has made strange talk about you this evening," he said. "If the talk is true you are endangered, for when she returns to

her village she'll spread the news and the police will be here soon enough."

"Must one flee, then?" I asked.

"The choice is yours. Alarms still are out for this prince; if you are he no one here can protect you against the authorities."

"Then one must flee. At day-break—"

"Now," he said. "While the girl still lies here asleep."

He pressed money of Glin into my hand, over and beyond what he owed me in current wages; I gathered my few belongings and we went outside together.

The night was moonless and the winter wind was savage. By starlight I saw the glitter of lightly falling snow. My employer silently drove me down the slope, past the foothills village from which the whores came and out along a back-country road, which we followed for some hours. When dawn met us we were in south-central Glin, not overly far from the River Huish. He halted at last in a village that proclaimed itself to be Klaek, a winterbound place of small stone cottages bordering on broad snowy fields. Leaving me in the truck, he entered the first of the cottages, emerging after a moment, accompanied by a wizened man who poured forth a torrent of instructions and gesticulations; with the aid of this guidance we found our way to the place my employer was seeking, the cottage

of a certain farmer named Stumwil.

This Stumwil was a fair-haired man of about my own height, with washed-out blue eyes and an apologetic smile. Maybe he was some kinsman of my employer's, or, more probably, he owed him a debt—I never asked. In any case the farmer readily agreed to my employer's request and accepted me as a lodger. My employer embraced me and drove off into the gathering snow; I saw him never again. I hope the gods were as kind to him as he was to me.

**T**HE cottage was one large room, divided by flimsy curtains into areas. Stumwil put up a new curtain, gave me straw for my mattress and I had my living quarters. There were seven of us under that roof: Stumwil, myself and Stumwil's wife, a weary wench whom I could have been persuaded to believe to be his mother, and three of their children—two boys some years short of manhood and a girl in mid-adolescence—and the bondsister of the girl, who was lodging with them that year. They were sunny, innocent, trusting folk. Though they knew nothing about me, they all instantly adopted me as a member of the family, some unknown uncle unexpectedly returned from far voyaging. I was not prepared for the easy way they

accepted me and credited it at first to some net of obligation in which my former employer had bound them to me, but no: they were kindly by nature, unquestioning, unsuspicious. I took my meals at their table; I sat among them by their fire; I joined in their games. Every fifth night Stumwil filled a huge dented tub with hot water for the entire family and I bathed with them, two or three of us in the tub at once, though it disturbed me inwardly to rub up against the plump bare bodies of Stumwil's daughter and her friend.

I paid a fee for my lodging and helped with the chores, though in winter there was little to do except shovel snow and feed the fire. None of them showed curiosity about my identity or history. They asked no questions and I believe that no questions ever passed through their minds. Nor did the other townspeople pry, though they gave me the scrutiny any stranger would receive.

Some newspapers occasionally reached this village and those that did went from hand to hand until all had read them, when they were placed on deposit at the wineshop at the head of the main village thoroughfare. I consulted them there, a file of stained and tattered scraps, and learned what I could of the events of the past year. I found that my brother Stirron's wedding had taken place on schedule, with appropriate regal pomp; his lean

troubled face looked up out of a blurry, grease-splotted bit of old paper. Beside him was his radiant bride, but I could not make out her features. There was tension between Glin and Krell over fishing rights in a disputed coastal area and men had died in border skirmishes. I pitied General Condorit, whose patrol sector was at the opposite end of the boundary, almost, from the Krell-Glin line and who, therefore, must have missed the fun of somehow involving Salla in the shooting. A sea monster, golden-scaled and sinuous, more than ten times the length of a man's body, had been sighted in the Gulf of Sumar by a party of Mannerangi fishermen, who had sworn a mighty oath in the Stone Chapel as to the authenticity of their vision. The prime septarch of Threish, a bloody old brigand if the tales they tell of him are true, had abdicated and was dwelling in a godhouse in the western mountains not far from Stroin Gap, serving as a drainer for pilgrims bound to Manneran. Such was the news. I found no mention of myself. Perhaps Stirron had lost interest in having me seized and returned to Salla.

It might therefore be safe for me to try to leave Glin.

Eager as I was to get out of that frosty province, where my own kin rebuffed me and only strangers showed me love, two things held me back. For one, I meant to stay

with Stumwil until I could help him with his spring planting, in return for his kindness to me. For another, I would not set forth undrained on so dangerous a journey, lest in some mishap my spirit go to the gods still full of poisons. This village of Klaek had no drainer of its own, but depended for its solace on itinerant drainers who passed now and then through the countryside. In the winter these wanderers rarely came by and I had gone undrained since the late summer, when a member of that profession had visited the logging camp.

I felt the need.

**A**LATE-WINTER snow came, a storm of wonders that coated every branch with a fiery skin of ice and immediately thereafter came a thaw. The world melted. Klaek was surrounded by oceans of mud. A drainer driving a battered and ancient groundcar came to us through this slippery sea and set up shop in an old shack, doing fine business among the villagers. I went to him on the fifth day of his visit and unburdened myself for two hours, sparing him nothing, neither the truth about my identity nor my subversive new philosophy of kingship nor the usual grimy little repressed lusts and prides. It was more of a dose, evidently, than a country drainer expected to receive and he seemed to puff and

swell as I poured out my words; at the end he was shaking as much as I and could barely speak. I wondered where it was that drainers went to unload all the sins and sorrows they absorbed from their clients. They are forbidden to talk to ordinary men of anything they have learned in the confessional; did they therefore have drainer-drainers, servants of the servants, to whom they might deliver that which they could not mention to anyone else? I did not see how a drainer, unaided, could long carry such bundles of sadnesses as he got from any dozen of his customers in a day's listening.

With my soul cleansed, I had only to wait for planting time, and it was not long in coming. The growing season in Glin is short; they get their seeds into the ground before winter's grip has fully slipped, so that they can catch every ray of spring sunlight. Stumwil waited until he felt certain that the thaw would not be followed by one last tumult of snow and then, with the land still a sucking quagmire, he and his family went out into the fields to plant breadseed and spicelower and blueglobe.

The custom was to go naked to the planting. On the first morning I looked out of Stumwil's cottage and beheld the neighbors on all sides walking bare toward the furrows, children and parents and grandparents stripped to the skin

with sacks of seed slung over their shoulders— a procession of knob-by knees, sagging bellies, dried-out breasts, wrinkled buttocks, illuminated here and there by the smooth firm bodies of the young. Thinking I was in some waking dream, I looked around and saw Stumwil and his wife and their daughter already disrobed and beckoning to me to do the same. They took their sacks and left the cottage. The two young sons scampered after them, leaving me with the bondsister of Stumwil's daughter, who had overslept and had just appeared. She shucked her garments too; a supple saucy body she had, with small high dark-nippled breasts and slender well-muscled thighs.

I asked her, "Why is the planting done naked in such a cold time?"

"The mud gives cause for slipping," she explained, "and it is easier to wash raw skin than garments."

There was truth enough in that, for the planting was a comic show, with peasants skidding in the tricky muck every tenth step they took. Down they went, landing on hip or haunch and coming up smeared with brown; it was a matter of skill to grasp the neck of one's seed-sack as one toppled, so that no precious seeds would be scattered. I fell like the rest, learning the knack of it quickly, and indeed there was pleasure in slipping, for the mud had a voluptuous



oozy feel to it. So we marched on, staggering and lurching, slapping flesh to mud again and again, laughing, singing, pressing our seeds into the cold soft soil, and not one of us but was covered from scalp to tail with muck within minutes. I shivered miserably at the outset, but soon I was warmed by laughter and tripping, and when the day's work was done we stood around shamelessly naked in front of Stumwil's cottage and doused one another with buckets of water to clean ourselves. By then it seemed reasonable to me that they should prefer to expose their skins rather than their clothing to such a day's labor, but in fact the girl's explanation was incorrect: I learned from Stumwil later that week that the nakedness was a religious matter, a sign of humility before the gods of the crops and nothing else.

Eight days it took to finish the planting. On the ninth, wishing Stumwil and his people a hearty harvest, I took my leave of the village of Kiaek and began my journey to the coast.

**A** NEIGHBOR of Stumwil's took me eastward the first day in his cart. I walked most of the second, begged a ride on the third and fourth and walked again on the fifth and sixth. The air was cool but the crackle of spring was in it, as buds unfolded and birds returned.

I bypassed the city of Glain, which might have been dangerous for me, and without any events that I can clearly recall I made my way swiftly to Biumar, Glin's main seaport and second most populous city.

It was a handsomer place than Glain, though hardly beautiful: a greasy gray sprawl of an oversized town, backed up against a gray and menacing ocean. On my first day there I learned that all passenger service between Glin and the southern provinces had been suspended three moontimes before, owing to the dangerous activities of pirates operating out of Krell, for Glin and Krell were now engaged in an undeclared war. The only way I could reach Manneran, it seemed, was overland via Salla, and I hardly wished to do that. I was resourceful, though. I found myself a room in a tavern near the docks and spent a few days picking up maritime gossip. Passenger service might be suspended, but commercial seafaring, I discovered, was not, since the prosperity of Glin depended upon it; convoys of merchant vessels, heavily armed, went forth on regular schedules. A limping seaman who stayed in the same tavern told me, when blue wine of Salla had oiled him sufficiently, that a merchant convoy of this sort would leave in a week's time and that he had a berth aboard one of the ships. I considered drugging

him on the eve of sailing and borrowing his identity, as is done in pirate tales for children, but a less dramatic method suggested itself to me: I bought his shipping-papers. The sum I offered him was more than he would have earned by shipping out to Manneran and back, so he was happy to take my

money and let me go in his place. We spent a long drunken night conferring about his duties on the ship, for I knew nothing of seamanship. At the coming of dawn I still knew nothing, but I saw ways I could bluff a minimal sort of competence.

I went unchallenged on board

---

### ★★★GALAXY STARS★★★

"I still hide a lot," says Theodore Sturgeon, "but not the way I did. Now I hide from good people. The bad ones are easy to handle. I was hiding so far under a rock once that I didn't realize I had disappeared. A redhead with radar (range 6500 miles) located me and dragged me out and grows organic food and designs and makes all our clothes and bakes bread and teaches me journalism and dancing and photography and does the darkroom work and raises hell out of our son Andros.

"I'd rather talk about what I do and think instead of what I am and where I've been. Forthcoming is *Sturgeon is Alive and Well* and *Sturgeon's West* and *Sturgeon and Crime* and a Sturgeon omnibus which may well be called *A Sturgeon Omnibus*, and *Drusilla Strange*, all collections. Then

there's *Godbody*, which I think will be my big one, bigger than *More Than Human*.

"It's a novel."

"What I think: Things you own will own you if you're not careful. The only legitimate demand in making love is 'What pleases *you*?' Before you protest anything, qualify. Learn everything on both sides and keep in mind that when you point your finger at anyone there are three fingers pointing back at you. 'Good enough' is never good enough. Really ask yourself why you won't pick up someone else's litter. Barring accidents (but not always then) each of us is where he wants to be. Nobody would be neurotic if it didn't work. Nobody's parents will say, 'I did it wrong. I'm sorry,' so stop expecting it and you'll put down a burden you didn't even know you were carrying."

the vessel, a low-slung air-powered craft heavily laden with Glinish goods. The checking of papers was perfunctory. I picked up my cabin assignment, installed myself, reported for duty. About half the jobs they asked me to do over the first few days I managed to carry out reasonably well by imitation and experiment; the other things I merely muddled with and soon my fellow sailors recognized me for a bungler, but they kept knowledge of that from the officers. A kind of loyalty prevailed in the lower ranks. They did for me the jobs I could not do myself; I relieved them of dull work that was within my narrow skills and all went well. I swabbed decks, cleaned filters and spent endless hours manning the guns against pirate attacks. But we got past Krell's dreaded pirate coast without incident and slipped easily down the coast of Salla, which already was green with spring.

Our first port of call was Cofalon, Salla's chief seaport, for five days of selling and buying. I was alarmed at this, for I had not known we planned to halt anywhere in my homeland. I thought at first to announce myself ill and hide belowdecks all our time in Cofalon; but then I rejected the scheme as cowardly, telling myself that a man must test himself frequently against risk, if he would keep his manhood. So I boldly went wenching and wining in town

with my shipmates, trusting that time had sufficiently changed my face, and that no one would expect to find Lord Stirron's missing brother in a sailor's rough clothes in such a town as this. My gamble succeeded: I went unvexed the full five days. From newspapers and careful overhearing I learned all I could about events in Salla in the year and a half since my leaving.

Stirron, I gathered, was popularly held to be a good ruler. He had brought the province through its winter of famine by purchasing surplus food from Manneran on favorable terms and our farms had since then had better fortune. Taxes had been cut. The people were content. Stirron's wife had been delivered of a son, the Lord Dariv, who now was heir to the prime septarchy, and another son was on the way. As for the Lord Kinnall, brother to the septarch, nothing was said of him; he was forgotten as though he had never been.

We made other stops here and there down the coast, several in southern Salla, several in northern Manneran. And in good time we came to that great seaport at the southeastern corner of our continent, the holy city of Manneran, capital of the province that bears the same name. It was in Manneran that my life would begin anew.

TO BE CONTINUED

Can life as endured on  
Earth survive on the moon?



# PEGASUS TWO

ERNEST TAVES

**P**EGASUS Two. Mercury, Gemini, Apollo—and Pegasus. Robert Goddard, Werner von Braun, V-2s over the Channel, Vikings, empty capsules, a couple of rhesus monkeys, a pair of beguiling chimps named Ham and Enos, Alan Shepard, John Glenn. Off we go into the wild blue yonder.

And for what? Dust, soil, rocks—like that. If the rocks are glassy, crystals look out at you saying, *Aren't we pretty—and more than slightly intriguing?*

Setting up instruments here and there.

Here comes the first nonastronaut to be set loose upon this sun-struck mess and I've been thinking about it too much.

Pegasus. Hippocrene, I say to myself, may have welled forth at the touch of your misbegotten hoof, but for me, winged steed, you are the earth end of a horse headed moonward. I'm stumbling around Leontievski looking for interesting rocks.

And this, believe me, is where the action isn't.

Where have all the astros gone? Why am I, a mere passenger, rock-hounding on the moon—the way I used to when I was a pebblepup out in the Sierra Madre, except we didn't need space suits there and didn't have to crap into blue bags? Well, I'll tell you: the astronauts, most of them, are getting ready for Venus and Mars. The moon is a backwater, left behind like Dodge

City when the frontier went that away.

Pegasus, you will understand, is a mop-up mission, like cleaning up the theater the morning after the show folds. No—don't take me wrong—we haven't solved all the moon problems, not by a long shot, but there's not enough money (goes without saying), and NASA is heading most of what there is toward the nearer planets.

Anyway, who needs those years and years of astro training to walk around the moon in a space suit, latching onto rocks, setting up instruments? I am, after all, a certified card-carrying geologist—a real one, I mean, which is more than I can say (with all due respect) for the astronauts. Of course we have two certified astros on Pegasus Two, but I'm here also, and that leaves one of them free to sit down there on the Florida beach, or wherever, and look up at the red planet.

"Hey, Stu," comes into my helmet. Stuart Stong am I, and I'm feeling I'm a long way from home and I want to go back. I raise my enclosed cephalad end and find Harry Littlewood outlined on the edge of this, our crater. Leontievski. Wurzelbauer is vaguely to the north, and Wilhelm to the south. We're in between. That much I do know.

"Yes?" I say, with stupefying originality.

"You'd better come over here."

Something communicated in the voice, something not sounding astrocool. I put my rock bag down near the LEM and point myself toward Harry. I approach him and he aims his gloved index finger at the gray soil upon which we stand.

Tracks there, corrugated boot prints—almost like ours, but not quite. “Tracks,” I said. My day for coining new phrase. “Must be the Russians.”

“Probably,” Harry said. The frequency spectrum of our communications gear wasn’t exactly hi-fi, but I got the distaste in his voice. “None of our missions have been anywhere near here.”

**T**HE tracks approached the edge of Leontievski, then went back and away, lost in the distance. No alien LEM was in sight—but the terrain was rough, so that didn’t mean much one way or the other.

Consider these: Item one—approximately thirty-six hours before our lift-off, high-resolution infrared sensors aboard one of our conveniently placed surveillance satellites had told us the Russians were fooling around with something cryogenic at a known launch site. Fuel into booster, right? Right. Item two—approximately twenty-eight hours before lift-off of Pegasus Two and my own introduction to the hazards and boredom of space flight, Houston radar had picked up a capsule—nothing to

do with anything of ours—on lunar trajectory. This had been confirmed, routinely, by Jodrell Bank. So—two missions had slipped through the same window. There had been some talk about the possibility of collision in lunar orbit, which hadn’t cheered me immensely, though I know—had been told, rather—that the probability of that occurrence approached zero.

“Well, Robinson,” I said, “let’s go see what Friday looks like.”

The sun was in the right place relative to how we stood and I had a good look at Harry’s eyes. Through the two fishbowls something that looked like pity came my way. Well—Harry was an astronaut, and I was a geologist.

“Pigeon to Glaucous, how copy?” he said. There had been some talk of naming our command module Edsel, but someone had raised questions of taste.

“Glaucous to Pigeon, loud and clear,” said Sid Norris. “I don’t know what you boys looking at down there, but I’ve cut in Houston.”

“Roger.” Harry was all business, running the store like an astronaut should. “Houston?”

“Roger, Harry.”

“We’re on the northeastern edge of Leontievski,” Harry said while I just stood there. “There are footprints. They come to the crater’s edge from the northeast, then go back in the same direction they

came from. Could be that Russian shot. Anything new on that?"

"Their hardware is in lunar orbit. No danger of collision with ours, by the way." That's good, I thought. "If they did put down a LEM—nothing's been heard from it. Moscow isn't talking. One set of tracks there?"

"Affirm. One round trip, that is."

"Roger. Stay there," Houston said. "We'll check a bit. Hold there for now, acknowledge?"

"Roger."

"Houston out."

"Same size as ours?" Sid asked, from lonesome orbit. "Or more like an abominable lunar snow man?"

"Little smaller," Harry said. "Different tread."

"Damn, boy, and howdy. Could have been left there a thousand years ago, couldn't they, Harry?"

"Of course," Harry said. "But all probability points at that mission that got off the day before we did."

"Well," Sid said, "y'all be careful down there, heah? Don't think I could hardly fly this thing back home all by my lonely lovable old self."

"Never fear while Pigeon's here," I said, but it didn't seem to strike the right note. Harry and I walked around a little, not messing up the prints.

"Back here, damn it," Harry said to me suddenly. I'd wandered

a few yards along the double row of prints. "You heard Houston."

"Sorry, Chief. I just want to see what's at the end of those tracks. A natural-born explorer I. Somebody out there might need help," I said.

"That would be their problem, wouldn't it?" Harry said, and then Houston was back on, rattling our helmets. "Cool it," Harry said unnecessarily.

"Pigeon from Houston."

"Roger, Houston. Loud and clear."

"Roger. Scramble this, Sid."

The scrambler was new with tired old Pegasus. Collins had come up with a fancy new bucket of bolts, guaranteed to defy unscrambling by you know who; ours was the first mission to use it.

"Ready go," Sid said.

"Acknowledge. Harry and Stu, how copy?"

"Beautiful," Harry said. I was glad Houston had included me.

"Well. All right. You boys have just put Houston up the wall. I don't suppose I have to ask if you're sure about what you're sceing?"

**WE BOTH** looked, involuntarily, at the tracks again. "Please," Harry said.

"Excuse me. Moscow has been talking a little, apparently, but saying nothing. Evasive gobbledegook. We think their LEM is

down, and had a bum trip. Consensus is as follows: if Stu isn't too tired—you've been out a bit, we know—Stu follows the tracks and you hold down the LEM. How does that grab you, Stu?"

A question of relative expendability was involved here, I thought, but it suited me fine and I said so.

"All right. We'll play it by ear, since we have no idea what you'll find."

"The sooner the better," says the first, and expendable, nonastro up here. I was looking at home at the moment. Color and clouds—and I remembered a time I had looked for shells on the beaches of the Dry Tortugas.

"Roger. You're off and running, then, Stu. Watch your oxygen—turn back soon enough. You're about fifteen minutes from Pigeon, right?"

"Roger."

"Roger. We don't know how far those tracks go. If you're not at the end of the line when oxygen reads four five, return to Pigeon. Acknowledge?"

"Charlie Brown. I'm on my way."

"Roger, Stu. Don't forget—keep talking."

*And keep listening*, I heard in the reaches of my mind. We had leeway up here and made lots of on the spot decisions—that was par for the course and expected. But when the chips were really down

Houston called the shots and I understood that.

"Harry?" Houston again.

"Roger."

"Back to Pigeon. Mind the store. We don't want any monkey business up there."

"That's a roger. On my way."

"Roger. Houston out."

Harry wanted to go, I could tell, but there was no way. He was, after all, worth more to NASA than I was. Besides, he knew how to fly the LEM.

"Stu?" Sid, from orbit.

"Bet you wish you were down here, Sid. But we can't all grab the brass ring, can we?"

"You watch it, heah?"

"I gone go catch me a man Friday," I said.

**T**HE tracks looked very fresh—like mine. But for all I knew about micrometeoritic erosion of moon surface those prints could have been made twenty thousand years ago. I plodded along the trail, talking just enough to keep Control and Harry and Sid happy. The outer slope of the crater rim was steeper than it had seemed from above. I almost tumbled once and the tracks told me that whoever had been there before me had done the same. I felt a sense of kinship, or something, but said nothing about it.

At the base of the rim the soil became hard, the tracks difficult



to follow. The terrain was—well, frightening. Back in Pigeon I had looked home and wished I were there. In this wilderness I thought of Pigeon, which I could no longer see, and just about wished myself there—which ends today's lesson in relativity.

I described the situation as I went along. "It's rough," I said. "The footing, I mean. Reminds me of when I was —"

"Where are you, Stu, exactly?" Houston.

"Just at the bottom of the crater rim. There's a ridge ahead. The tracks point thataway. No LEM, no astronaut waving a red flag, no monsters. Sound footing. I'll keep following."

"Roger," Houston said. "Let us know—"

"All right," I said. What did they take me for? I knew what they took me for.

"Cool it," Harry said. I didn't respond for a few minutes, crunching along through the gray soil. I passed through a stretch where my prints were, I judged, about an inch and a half deep. The tracks I followed seemed a bit shallower but I didn't stop to measure.

"I'm at the foot of the ridge," I said, continuing the travelogue. "The tracks go right on up. And so go I. Come with me," I said to my unseen auditors, "as we ascend Stong's Ridge."

"For Christ's sake," someone said—voice low, but I heard it. I

was quiet after that until they asked about progress.

"I'm halfway up the ridge," I said. "I'm four-fifths up. Three more steps and I'll be—" A moment of silence and I stretched it a little. "I got me a LEM," I said.

They all sputtered at once and it was something to listen to. I held off long enough for the desperation quotient to build up to a satisfactory level, then relented.

I requested silence.

A craft of strange design, I told them, had indeed had a bum trip. No, I'd never seen anything like it. It doesn't look twenty thousand years old from outer space, I said. More like contemporary, but different. It had three legs, or pods, same as ours, and one of them had, from what I could see at that distance, come down smack on a boulder. The unit was on its side, like a cat sleeping, or a drunk thrown into the street. More chatter came through the scrambler than you can imagine. Finally Houston said that was fine, now be a good boy and go back to Pigeon while we evaluate. *I see*, I said to myself. *They will evaluate it better down there than I will up here, my boots standing in moondust. Screw it . . .*

"Not right now," I said—and a mighty cool voice came back to me from Houston; I recognized it, but I'd never talked to it. After he'd said his piece, I said mine. "I got

me an astronaut, too," I said and flicked off the incoming audio.

"YOU can hear me," I said, "but I can't hear you, so you might as well all hush." I began to walk toward the suited figure that had emerged from the fallen LEM. It stood there waiting and I pictured the scene at Houston. As I approached I made out a hammer and sickle on the near side of the spacecraft. *Shucks, it's not from way out there . . .*

"It's a Russian LEM," I said. "Doesn't look like it'll fly again. Astronaut standing there. I'm going forward."

When I was close enough to see inside the other fishbowl I was glad that LEM wasn't from way out there, because what was inside that spacesuit was a girl, by damn, and inside the fishbowl was one of the loveliest heads I'd ever seen. She looked scared, though, lots of white showing around irises of undetermined, but dark color. What the protocol? A tired joke about Mrs. Livingstone?

We stood there looking at each other. I thought again of the scene at Houston and—not to my credit—I smiled. I turned off my mike, and we both started talking at the same time, hearing only our own voices, of course.

Then, wondering if I were being presumptuous or too familiar—I had no precedent to guide me—I

touched my bowl against hers and said, "Hello?"

Improbably, then, the smell of balsam was inside my helmet; I wondered why, until I remembered the wounded fawn I'd taken care of one fall in New Hampshire. The fawn had been left behind, on our property, by a careless jacking hunter. I hated hunters, then and now.

"Hello," she said tentatively. So far so good. She spoke English, at least one word of it, which was more than could be said for me and Russian.

"It's all right," I said, not knowing what I was talking about. "You speak English well?"

She looked at me and considered. It was almost cozy, standing there in the moondust. The first girl I'd seen in a long time, and our heads, so to speak, together. What the hell, it was the only way we could talk.

"Enough well, I think," she said.

"We have much to talk about," I said and she nodded. I indicated for her to stand by a minute and turned on both mike and receiver. "Houston?" I waited for the noise to taper off. Harry was calling, Sid was calling and it was hard to say how many mikes were open in Houston in violation of all SOP. It reminded me of amateur radio pile-ups on rare stations when I had been a callow youth, working on DXCC. It did quiet, though. "Put Sam on, please, if he's there." Sam

was one of the communicators I liked. I knew he was there, all right; so was everyone else on that side of the Mississippi, everyone who had anything to do with Pegasus Two.

"This is Sam, Stu. Copy?"

"Roger, Sam. Glad you're there. May I say—"

"May I say," Sam interrupted me, "that the whole world is listening, the whole world that can get through this scrambler, that is, and there's quite a bunch here. Would it be asking too much—"

"Cool it," I said. I'd been told that quite a number of times lately; I didn't mind turning it the other way round. I knew a hundred reels of tape were recording every intonation for NASA and posterity. I waited until everything was quiet again. "Sam?"

"Yes."

"That's better. Knowing the impatience rampant down there, I've called you as soon as it seemed meaningful to do so." I paused. Not a word. Like, man, I had my audience. "This is going to be a short transmission and when I've finished I'll terminate contact again. Temporarily, of course." There wasn't much flak this time—my helmet was quiet in about twenty seconds. "I'm standing next to a Soviet LEM. One pod hit a boulder. This bird won't fly no more, I think. I'm also standing next to a Russian astronaut. Make that astronette; she's a

girl. She speaks English." I waited for that to register. While it was doing so I noted that she had put her fishbowl back against mine. There was a strange intimacy in that. How much of what I was saying she was getting I didn't know. I smiled at her and she gave me something back, a kind of smile, scared still but saying something I'd have to decode later. Suddenly I had to know her name. I cut the rig and asked her.

She sobered.

"Nora," she said.

"That's nice. I'm Stu." I said, we standing there in the wilderness. Through our masses of coverings I touched her elbow, then turned the communications back on.

"I just got here," I said, "and I know nothing more than I've told you. I have plenty of oxygen." I checked. "Reads now—five one. I'll be back to you as soon as I have anything further." Decibels came pouring into my helmet like a million starlings under a bridge at twilight. It was the easiest thing in the world to turn them off and that was what I did. Power tends to corrupt. I'm not maintaining that, just quoting.

"You understood?" I asked Nora, my communicative transistors all dismayed.

"Some."

"We must talk."

"Yes. We can go in," she said, nodding toward the open hatch.

**A**ND change into something more comfortable, I thought wildly. Talk through air instead of plastic, that would be good. The hatch faced us. I found I was gently urging her toward it.

"First this," she said and this time she took my elbow. Trusting soul that I've always been, I followed her. She led me to the other side of the LEM, down into a shallow gully. *I got me another astronaut*, I thought, *but this one's dead*. "He died when we opened the—door," Nora said. "The landing was—bad. There was a tear in the suit—we didn't know. We couldn't close the door fast enough."

I got the picture.

"All right."

We went back to the lying-down hatch and climbed inside the LEM. I helped her close the hatch, which was difficult because we had to close it upward instead of sideways. Nora manipulated switches, somewhat hesitantly, and watched indicators. She nodded and began to unsuit. Everything was on its side because of the bum landing, but it didn't seem to make much difference. Try this: turn your favorite room to any angle, granting the furniture is fixed and not free-floating. Give it a little bit of gravity and imagine you're on that old deserted island. By deserted island I mean you're snug there, without external disturbance or distraction. It would work, right?

I unsuited, too.

"This is better," I said. It was better by orders of magnitude.

"Yes," she said and rummaged into an upsidedown locker. I had a delightful vision of the hushed and silent scene (I imagined) at Mission Control. Nora's next words did nothing to detract from that. "Vodka," she said, "yes?"

*The Russians do this better than we*, I thought. I was tempted to call up Harry, whose attitude toward the Soviet program had always been tinged with a moderate, but unappealing, paranoid aura.

"Yes," I said.

"This is for emergency only, of course," she said haltingly, but not missing a word. I was again glad she spoke English. I could have managed no communication in Russian.

"This is an emergency," I said. First she smiled, then she laughed, really laughed and so did I, not pausing to inquire into the justification or rationale for euphoria under these circumstances. She handed me a squeeze bottle, took one herself and we touched them together. My goodness. I wasn't about to turn in my stars and stripes for the hammer and sickle, but that vodka was something else. We didn't need squeeze bottles in lunar gravity, but that was their issue and I wasn't about to complain.

We had to get down to business sooner or later and I thought to get

it over. "How long will it go?" I asked, indicating with a sweep of my hand the fallen LEM. "The life support system, the oxygen?"

"Three or four days, I think. That part I don't think is hurt."

No way to get the LEM back into proper position. I knew Harry and I couldn't right it. Something for future missions to think about—hydraulic lifts or something. No engineer I.

"I could not fly it anyway," she said. "And the radio is gone—in the landing."

No doubt about it, we were on the first rescue mission in space. I wondered how Harry would like that; he didn't want to be in the same world with the Russians, let alone the same spacecraft.

"Even if the craft were all right, you couldn't fly it?"

"No. I came as scientist. Geologist."

"That makes two of us," I said. "I'll have to call Houston. I wonder if I can do it without suiting up." I didn't want to go outside. I got as close as I could to one of the ports, hoping my milliwatt signal would radiate. I came on all formal. "Houston," I said. "Pigeon here. How copy?"

**S**AM was still on. "You're weak, Stu, but I read you. Where—"

"Roger. I'm in the capsized LEM with Nora. That's her name," I said, realizing again this

was my day for coining deathless phrase. "The captain of the mission is dead, busted his suit in landing and didn't know it when they cracked the hatch. Life support is in go condition, presumably undamaged. Radio was knocked out in landing. Roger?"

"Acknowledge. But let me say something when you're through."

A touch of the velvet glove, yes. "Affirmative. So we have to get the girl down. I suggest you get on the hot line to Moscow and—"

"Hold it—"

Now the iron hand within the glove, Sam interrupting me with such force I just sat there and listened. "Stu. The decision to open the hot line isn't made in Houston, it's made in the White House. However, for your information, the hot line is open. We've told the Russians you've found their LEM, and that it's apparently knocked out. Now we'll confirm that and let them know one of their astronauts is dead—the captain. Decisions will be made in high places before this day is over, Stu. Anything else now?"

"I don't know what decisions have to be made. We bring Nora back with us, of course."

Harry broke in. "We don't have the thrust for that, Stu, and you know it."

"So we dump the rocks, for Pete's sake. No problem—"

Sam broke in with authority. "All right, gentlemen, knock it

off. Decisions will be made in the White House and I don't think either of you should try to out-guess the President. Maintain status quo for now. We'll be back to you when we have something. Houston out."

"Just one, Sam." Sid.

"Make it short."

"Roger. I say we take her back, that's all. Have to."

"Okay, Sid, your vote's in—but it's academic. None of you has a vote and the decision will be made by the President. Houston out."

"Harry?" I called.

"Roger."

"You're out of your cotton-picking mind, chum. We've got no problem. We take Nora instead of the rocks—"

"Do you know how much it costs per pound, per ounce, to come up here and take those rocks back?"

I reached out my hand and Nora put another squeeze bottle in it. Good girl. "I certainly do, Harry. But for heaven's sake, man, think of the political value of rescuing a Russian lost in space. Anyway, how could you, or anyone, trade the whole damn moon, let alone a few rocks, for one pretty girl's life? She is pretty—"

"Like Sam said, Stu, the decision is the President's."

"Right. But you know perfectly well what that decision will be, has to be. You know. Besides—if the Prexy had a moment of aberration and made the wrong decision, we

could make the right one for him right here. No way they could stop us."

"That sounds pretty much like treason, Stu."

"I'm with Stu," came from lonesome Sid.

"Thanks, pal. I know you, though, you just want to see a pretty girl again."

"Pigeon from Houston."

"Roger," Harry and I said at the same time.

"Nothing new yet, lots going on. Just wanted to remind you, in view of your conversation, you're being monitored, taped, stored and otherwise put on record. Houston out."

I flicked off the radio. I wasn't going to crouch down there by the port waiting for Houston to come back; we were in the driver's seat, as they must have known. I looked at Nora.

"I'm a problem," she said.

"To them—perhaps. Not really. To Harry—yes. He has some weird ideas. To me—no problem."

The smell of balsam in the LEM now. Lunar propinquity, the absence of spacesuits, the furor down there, we quiet where we were this created, we discovered, an equation to be dealt with. And—without unseemly haste, but not wasting time—we dealt with it.

Spacecraft were not built for it, but (may I say) it worked. It did do.

Another lunar first, all right?





**W**HEN we had made it a lunar second I fired up the rig and got on with Houston.

"We've been waiting," Sam said. I had read about glacial tones, but that was the first time I really heard one.

"I had to—rest," I said. I tried, possibly without success, to make my voice, my self, sound tired.

"You're refreshed now?"

"Yes, sir," I said, going along.

"That's good. Now hear this. The Russians have no capability of putting up a rescue mission, nor do we. The President has decided to scrap the sample-collecting aspect of Pegasus Two. The rescue is on." Of course, I thought. "Sid and Harry know about this—they've had their radios on." I got that. "Sid agrees and Harry doesn't—but that's neither here nor there. Copy all right, Stu?"

"Loud and clear."

"All right, here's the way it goes.



You've had a little rest but not enough." Nora and I smiled at each other. "And the President says we're not to leave Nora alone on the surface of the moon for a moment. Therefore, you and she will rest—sleep if you can—in the Russian LEM for the next six hours, then proceed to Pigeon. After that you and Harry will complete such assignments as possible within the following seven and a half hours. Then back to Glaucous, and home. Acknowledge?"

"Affirm. Double affirm."

"Sam?" Harry.

"Negative. I won't do it. Been thinking about it. The rocks are all aboard. I'm going to bring the rocks back."

"That's not possible, Harry." There was a tremor in Sam's voice, and stunned disbelief. "You mentioned treason a while back—"

"I'll take the verdict of history on that," Harry said, his voice flat, cool.

*The shrinks really blew this one . . .*

"Harry," Sam said. "If you do this—do you know where you'll be when you get back?"

"I know. Pigeon out."

"Wait a minute, Harry—what—for Christ's sake, *now*? All right. I'm going to retire tomorrow. Harry, stand by. Stu?"

"Roger."

"Would you believe the President is on—wants to talk to Nora. Get her to the mike, can you?"

"Roger." Nora had heard. She paled. "The President wants to talk to you," I said unnecessarily. She crouched down beside me. "We're ready, Sam."

"Roger. Just one. Mr. President—you're on, sir."

"Thank you," said the familiar voice. "Miss Nora, do you hear me?"

"This is Nora Ivanovna. I hear you, sir."

"Miss Ivanovna. I greet you in the name of the people of the United States. We profoundly regret the failure of your mission and the loss of your fellow astronaut and we extend to you and your country our heartfelt sympathies." Hell. Well, anyway, he made the right decision. "We are honored, however, Miss Ivanovna, to be able to bring you back to Earth. This will bring our countries together. My wife and I look forward to seeing you in the White House. God speed home."

The President was waiting.

Nora took her time, thinking.

"Thank you, Mr. President," she finally said. I wished the President could have seen us there, me holding her hand. "Thank you. And, for now, goodbye."

"Goodbye, Miss Ivanovna."

"ONE moment, Mr. President, sir," we heard Sam say, before they cut us out of the circuit. A few minutes later: "Pigeon from

Houston. Harry, come in." Nothing. Repeat several times, still nothing. "Try him, Stu," Sam said and I did. Same result. Same with Sid. "Hold on," Sam said. Then: "This is the President speaking. Mr. Harry Littlewood, do you hear me? Mr. Littlewood? I repeat, this is the President speaking. You are hereby ordered to participate in the rescue mission as planned. Do you acknowledge? I repeat, this is a direct order from the President. You will participate in the rescue as planned. I need not point out the consequences of refusal to carry out this order."

Nothing from Harry. "Thank you, Mr. President. We'll keep trying."

"Sam?" I called.

"Yes, Harry." He did sound tired.

"Stu here. In view of the circumstances I think we'd better revise the plan. How about Nora and I go over now and I try to reason with Harry?"

"Hold one." I could see heads nodding all over Mission Control. "That's a roger, Stu. And you'd better get going. Keep in contact."

"Roger." We suited up in a hurry. "Sid," I called, when we were out and going along the tracks.

"Roger, Stu. For God's sake, talk some sense into Harry, he's flipped."

"Yes. Tell me this—if I have to knock him out or something, and

bring him up unconscious, could you tell me how to fly that thing up there?"

"I doubt it, Stu. No training. It's not all computerized by a long shot. But you know that. Possible, but not likely. Go."

"Roger. Just wondered. We're on our way."

Once more unto the rim of Leontievski. We put our heads together once, resting, and I said to Nora this was like walking in a spring morning on a street in Xenia, Ohio, and she said it was like an unnamable place in Leningrad in mid-May. So much for time, space, seasons and geography.

At the same time, as it happened, so much for Harry's LEM. It flamed up as we stood on Leontievski's rim and we watched it go. Barring the circumstances it would have been beautiful—and even, or in spite of, or because of, or whatever—it was, indeed, beautiful. An awkward stork rising from an unknown marsh.

*Well. And up yours, too . . .*

We watched the ascending flame. Left behind. Another lunar first. Nora and I put our heads together.

"We have some more days together," Nora said. "Three. Maybe four."

We smiled through the fish-bowls.

And back, once more, to the fallen LEM. ★



**A Lieutenant Grimes Novelette**

# THE MOUNTAIN MOVERS

**A. BERTRAM CHANDLER**

**Faith moves men and mountains—but  
sometimes with a bit of an assist . . .**

I  
**O**LGANA—Earth-type, revolving around a Sol-type primary—is a backwater planet. It is well off the main Galactic trade routes, although it gets by quite comfortably by exporting meat,

butter, wool and the like to the neighboring, highly industrialized Mekanika System. Olgana was a Lost Colony, one of those worlds stumbled upon quite by chance during the First Expansion, settled in a spirit of great thankfulness by the personnel of a hope-

lessly off course, completely lost emigrant lodejammer. It was rediscovered—this time with no element of chance involved—by the Survey Service's *Trail Blazer*, before the colonists had drifted too far from the mainstream of human culture.

Shortly thereafter there were legal proceedings against these same colonists, occupying a few argumentative weeks at the Federation's Court of Galactic Justice in Geneva, on Earth; had these been successful they would have been followed by an eviction order. Even in those days it was illegal for humans to establish themselves on any planet already supporting an intelligent life form. *But*—and the colonists' learned counsel made the most of it—that law had not been in existence when *Lode Jumbuk* lifted off from Port Woomera on what turned out to be her last voyage. It was only a legal quibble, but the aborigines had no representation at Court—and, furthermore, the counsel for the defense had hinted in the right quarters that if he lost this case he would bring suit on behalf of his clients against the Interstellar Transport Commission, holding that body fully responsible for the plights of *Lode Jumbuk's* castaways and their descendants. ITC, fearing that a dangerous and expensive precedent might be established, brought behind-the-scenes pressure to

bear and the case was dropped. Nobody asked the aborigines what they thought about it all.

There was no denying that the Olganan natives—if they were natives—were a backward race. They were humanoid—to outward appearances human. They did not, however, quite fit into the general biological pattern of their world, the fauna of which mainly comprised very primitive, egg-laying mammals. The aborigines were mammals as highly developed as Man himself, although along slightly different lines. There had been surprisingly little research into Olganan biology, however, the colony's highly competent biologists seemed to be entirely lacking in the spirit of scientific curiosity. They were biological engineers rather than scientists, their main concern being to improve the strains of their meat-producing and wool-bearing animals, descended in the main from the spermatozoa and ova which *Lode Jumbuk*—as did all colonization vessels of her period—had carried under refrigeration.

To Olgana came the Survey Service's Serpent Class Courier *Adder*, Lieutenant John Grimes commanding. She carried not-very-important dispatches for Commander Lewin, officer in charge of the small Federation Survey Service Base maintained on the planet.

The dispatches were delivered

and then, after the almost mandatory small talk, Grimes asked, "And would there be any orders for me, Commander?"

Lewin—a small, dark, usually intense man—grinned. "Of a sort, Lieutenant. Of a sort. You must be in Commodore Damien's good books. When I was skipper of a Courier it was always a case of getting from Point A to Point B as soon as possible, if not before, with stopovers cut down to the irreducible minimum . . . Well, since you ask, I received a Carlot-tigram from Officer Commanding Couriers just before you blew in. I am to inform you that there will be no employment for your vessel for a period of at least six weeks, local. You and your officers are to put yourselves at my disposal." The commander grinned again. "I find it hard enough to find jobs enough to keep my own personnel busy. So—enjoy yourselves. Go your merry ways rejoicing, as long as you carry your personal transceivers at all times. See the sights, such as they are. Wallow in the fleshpots—such as they are." He paused. "I only wish that the commodore had loved me as much as he seems to love you."

"Mphm," grunted Grimes, his prominent ears reddening. "I don't think that it's quite that way, sir." He was remembering his last interview with Damien.

*Get out of my sight*, the Com-

modore had snarled. *Get out of my sight—and don't come back until I'm in a better temper, if ever . . .*

"Indeed?" with a sardonic lift of the eyebrows.

"I don't think that I'm overly popular around Lindisfarne Base at the moment."

Lewin laughed outright. "I'd guessed as much. Your fame, Lieutenant, has spread even to Olgana. Frankly, I don't want you in my hair, around my base, humble though it be. The administration of this planet is none of my concern, luckily, so you and your officers can carouse to your heart's content as long as you don't do so in my bailiwick."

"Have you any suggestions, sir?" asked Grimes stiffly.

"Why, yes. There's the so-called Gold Coast. It got started after the trans-galactic clippers started calling here on their cruises."

"Inflated prices," grumbled Grimes. "A tourist trap."

"How right you are. But not every TG cruise passenger is a millionaire. I could recommend, perhaps, the coach tour of Never-never. You probably saw it from space on your way in—that whacking great island continent in the Southern Hemisphere."

"How did it get its name?"

"The natives call it that—or something that sounds almost like that. It's the only continent upon which the aborigines live, by the

way. When *Lode Jumbuk* made her landing there was no intelligent life at all in the Northern Hemisphere."

"What's so attractive about this tour?"

"Nevernever is the only unspoiled hunk of real estate on the planet. It has been settled along the coastal fringe by humans, but the Outback—which means the inland and most of the country north of Capricorn is still the way it was when men first came here. Oh, there are sheep and cattle stations and mining, but there won't be any real development, with irrigation and all the rest, until population pressure forces it. And the aborigines—well, most of them still live in the semidesert, as they did before *Lode Jumbuk* came." Lewin was warming up. "Think of it, Lieutenant, an opportunity to explore a primitive world while enjoying all modern conveniences! You might never get such a chance again."

"I'll think about it," Grimes told him.

**H**E THOUGHT about it. He discussed it with his officers. Mr. Beadle, the first lieutenant, was not enthusiastic. In spite of his habitual lugubrious mien he had a passion for the bright lights and made it quite clear that he had enjoyed of late so few opportunities to spend his pay that he could well afford a Gold Coast holiday. Von Tannen-

baum, navigator, Slovtovny, electronic communications and Vitelli, engineer, sided with Beadle. Grimes did not try to persuade them—after all, he was getting no commission from the Olganan tourist bureau. Spooky Deane, the psionic communications officer, asked rather shyly if he could come along with the captain. He was not the companion Grimes would have chosen—but he was a telepath and it was just possible that his gift would be useful.

Deane and Grimes took the rocket mail from Newer York to New Melbourne, and during the trip Grimes indulged in one of his favorite whinges, about the inability of the average colonist to come up with really original names for his cities. At New Melbourne—a drab, oversized village on the southern coast of Nevernever—they stayed at a hotel which, although recommended by trans-galactic clippers, failed dismally to come up to galactic standards, making no attempt whatsoever to cater to guests born and brought up on worlds with widely differing atmospheres, gravitational fields and dietary customs. Then there was a day's shopping, during which the two spacemen purchased such items of personal equipment as they had been told would be necessary by the office of Nevernever Tours. The following morning, early, they took a cab from their

hotel to the coach terminal. It was still dark. And it was cold. And it was raining.

They sat with the other passengers—all of whom were, like themselves, roughly dressed—in the chilly waiting room, waiting for something to happen. To pass the time Grimes sized up the others. Some were obviously outworlders

a TG clipper was in at the spaceport. Some—their accent made it obvious—were Olganans, taking the opportunity of seeing something of their own planet. None of them, on this dismal morning, looked very attractive. Grimes admitted that the same could be said about Deane and himself; the telepath conveyed the impression of a blob of ectoplasm roughly wrapped in a too-gaudy poncho.

A heavy engine growled outside and bright lights stabbed through the big windows. Deane rose unsteadily to his feet.

"Look at that, Captain—wheels, yet. I expected an inertial drive vehicle—or at least a hoverbus."

"You should have read the brochure, Spooky. The idea of this tour is to see the country the way the first explorers did, to get the *feel* of it."

"I can get the feel of it as well from an aircraft as from that archaic contraption."

"We aren't all telepaths."

Two porters had come in and

were picking up suitcases, carrying them outside. The tourists, holding their overnight grips, followed, watched their baggage being stowed in a locker at the rear of the coach. From the P. A. system a voice was ordering, "All passengers will now embus—all passengers will now embus—"

The passengers obeyed and Grimes and Deane found themselves seated behind a young couple of obviously Terran origin, while across the aisle from them was a pair of youngish ladies who could be nothing other than schoolteachers. A fat, middle-aged man, dressed in a not very neat uniform of gray coveralls, eased himself into the driver's seat.

"All aboard?" he asked. "Anybody who's not, sing out!" The coach lurched from the terminus on to the rain-wet street, was soon bowling north through the dreary suburbs of New Melbourne.

## II

**N**ORTHEAST they ran at first then almost due north, following the coast. Here the land was rich, green, well-wooded, with apple orchards, vineyards, orange groves. Then came sheep country, rolling downland speckled with the white shapes of the grazing animals.



"It's wrong," Deane whispered to Grimes. "It's all wrong—"

"What's wrong, Spooky?"

"I can feel it even if you can't. The—the resentment—"

"The aborigines, you mean?"

"Yes. But even stronger is that of the native animals, driven from their own pastures, hunted and destroyed to make room for the outsiders from beyond the stars. And the plants—what's left of the native flora in these parts—They've become weeds to be rooted out and burned, so that the grapes and grain and the oranges may flourish—"

"You must have felt the same on other colonized worlds, Spooky."

"Not as strongly as here. I can almost put it into words: *The First Ones let us alone*—"

"Mphm," grunted Grimes. "Makes sense, I suppose. The original colonists, with only the resources of *Lode Jumbuk* to draw upon, couldn't have made much of an impression. But when men had all the resources of the Federation to draw upon—"

"I don't think it's quite that way," murmured Deane. fully.

"Then what *do* you think?"

"I—I don't know, Captain."

They had little further opportunity for private talk. Slowly at first, then more rapidly, the coachload of assorted passengers was thawing out. The driver initiated this process—he was, Grimes realized, almost like the captain

of a ship, responsible for the well-being, psychological as well as physical, of his charges. Using a fixed microphone by his seat he delivered commentaries on the places of interest that they passed and, when he judged that the time was ripe, had another microphone on a wandering lead passed among the passengers, the drill being that each would introduce himself by name, profession and place of residence.

The tourists were a mixed bag. About half of them were from Earth—they must be, thought Grimes, from the TG clipper, *Cutty Sark*, presently berthed at the spaceport—public servants, lawyers, the inevitable instructors from universities, both major and minor, improving their knowledge of the worlds of the Federation in a relatively inexpensive way. The Olganans were similarly diversified.

When Grimes' turn came he said, "John Grimes, spaceman. Last place of permanent residence St. Helier, Channel Islands, Earth."

Tanya Lancaster, the younger and prettier of the two teachers across the aisle, turned to him. "I thought you were a Ferry, John. You don't mind my using your given name, do you? It's supposed to be one of the rules on this tour."

"I like it, Tanya."

"That's good. But you can't be from the *Cutty Sark*. I should

know all the officers, at least by sight, by this time."

"And if I were one of *Cutty Sark's* officers," said Grimes gallantly—Tanya was not at all bad looking, with her chestnut hair, green eyes and thin, intelligent face—"I should have known you by this time."

"Oh, she said, "you must be from the base."

"Almost right."

"You are making things awkward. Ah, I have it. You're from that funny little destroyer or whatever it is that's berthed at the Survey Service's end of the spaceport."

"She's not a funny little destroyer," Grimes told her stiffly. "She's a *Serpent-class* courier."

"And now, folks," boomed the driver's amplified voice, "how about a little sing-song to liven things up? Any volunteers?"

The microphone was passed along to a group of young Olgan students. After a brief consultation they burst into song.

*When the jolly Jumbuk lifted  
from Port Woomera  
Out and away for Altair Three  
Glad were we all to kiss the tired  
old Earth goodbye  
Who'll come a-sailing in Jumbuk  
with me?*

*Sailing in Jumbuk, sailing in  
Jumbuk,*

*Who'll come a-sailing in Jumbuk  
with me?*

*Glad were we all to kiss the tired  
old Earth goodbye—*

*You'll come a-sailing in Jumbuk  
with me!*

*Then there was storm, the pile  
and all the engines dead—*

*Blown out to hell and gone were  
we!*

*Lost in the galaxy, falling free in  
sweet damn all—*

*Who'll come a-sailing in Jumbuk  
with me?*

*Sailing in Jumbuk, sailing in  
Jumbuk,*

*Who'll come a-sailing in Jumbuk  
with me?*

*Lost in the galaxy, falling free in  
sweet damn all—*

*You'll come a-sailing in Jumbuk  
with me?*

*Up jumped the captain, shouted  
to his engineer,*

*'Start me the diesels, one, two,  
three!*

*Give me the power to feed into  
the Ehrenhafts—*

*You'll come a-sailing in Jumbuk  
with me!'*

"But that's *ours!*" declared Tanya indignantly, her Australian accent suddenly very obvious. "It's our *Waltzing Matilda!*"

"*Waltzing Matilda* never was yours," Grimes told her. The words—yes, but the tune, no. Like

many other songs it's always having new verses tacked on to it."

"I suppose you're right. But these comic lyrics of theirs--what are they all about?"

"You've heard of the Ehrenhaft Drive, haven't you?"

"The first FTL Drive?"

"Yes, you could call it that. The Ehrenhaft generators converted the ship, the lodejammer, into what was, in effect, a huge magnetic particle. As long as she was on the right tramlines, the right line of magnetic force, she got to where she was supposed to get to in a relatively short time. But a magnetic storm--tangling the lines of force like a bowl of spaghetti--would throw her anywhere--or nowhere. And these storms also drained the micro-pile of all energy. In such circumstances all that could be done was to start up the emergency diesel generators to supply electric power to the Ehrenhaft generators. After this the ship would stooge along hopefully, trying to find a habitable planet before the fuel ran out."

"H'm." She grinned suddenly. "I suppose it's more worthy of being immortalized in song than our sheep-stealing Jolly Swagman. But I still prefer the original." And then aided by her friend, Moira Stevens--a fat and cheerful young woman--she sang what she still claimed was the original version.

Grimes allowed himself to wonder what the ghost of the Jolly Swagman--still, presumably, haunting that faraway billabong--would have made of it all.

**T**HAT night they reached the first of their camping sites, a clearing in the bush on the banks of a river that was little more than a trickle. The coach crew--there was a cook as well as the driver--set up pneumatic pup tents in three neat rows, swiftly inflated them with a hose from the coach's air compressor. Wood was collected for a fire and folding grills laid across it.

"The inevitable steak and billy tea," muttered somebody who had been on the tour before. "It's always steak and billy tea."

But the food, although plain, was good, the yarning around the fire was enjoyable and Grimes found that the air mattress in his tent was at least as comfortable as his bunk aboard *Adder*. He slept well and awoke refreshed to the sound of the taped *Reveille*. He was among the first in the queue for the toilet facilities and, dressed and ready for what the day might bring, lined up for his eggs and bacon and mug of tea with a good appetite. Then came the washing up, the deflation of mattresses and tents, the stowing away of these and the baggage and, shortly after the bright sun had appeared over the

low hills to the east, the tour was on its way again.

It moved now through drought-stricken land that showed few signs of human occupancy. Grimes saw sun-parched plains where scrawny cattle foraged listlessly for scraps of grass, where tumbleweed scurried across the roadway, where dust-devils raised their whirling columns of sand and light debris. But there was life, apart from the thirsty cattle, apart from the gray scrub that, with the first rains of the wet season, would put forth its brief, vivid greenery, its short-lived gaudy flowers. Once the coach stopped to let a herd of sausagekine across the track—low-slung, furry quadrupeds wriggling like huge lizards on their almost rudimentary legs.

There was a great clicking of cameras.

"We're lucky, folks," said the driver. "These beasts are almost extinct. They were classed as pests until only a couple of years ago—now they've been reclassified as protected fauna."

Next came an aboriginal encampment where gaunt, black figures, looking arachnoid rather than humanoid, stood immobile about their cooking fires.

"Bad bastards those," announced the driver. "Most of the others will put on shows for us, will sell us curios—but not that tribe."

Now and again Grimes saw other vehicles—diesel-engined

tourist coaches like the one he rode, large and small hovercraft and, in the cloudless sky, occasional high-flying inertial-drive aircraft. But in the main the land was empty, the long, straight road seeming to stretch to infinity ahead and behind. The little settlements—pub, general store and a huddle of other buildings—were welcome every time that one was reached. There was a great consumption of cold beer at each stop, conversations with the locals, who gathered as though by magic, at each halt. Even coach parks—concentration camps in the desert rather than oases—were appreciated for hot showers and facilities for washing clothing.

As the tour progressed Grimes and Deane teamed up with Tanya and Moira. But there was, as yet, no sharing of tents. Grimes gained the impression that the girl's mother had told her at an early age to beware of spacemen. Come to that, after the first two nights there were no tents. Now that they were in regions where it was certain that no rain would fall all hands slept in sleeping bags only, under the stars.

They came to the Cragge Rock reserve.

"Cragge Rock," said the driver into his microphone, "is named after Captain Cragge, master of the *Lode Jumbuk*, just as the planet itself is named after his wife, Olga." He paused. "Per-

haps somewhere in the Galaxy there's a mountain that will be called Grimes Rock—but with all due respect to the distinguished spaceman with us, he'll have to try hard to find the equal to Cragge Rock. The Rock, folks, is the largest monolith in the known universe. It is a solid hunk of granite five miles long, a mile across, a half-mile high." He turned his attention to Tanya and Moira. "Bigger than your Ayers Rock, ladies!" He waited out a small outburst of chuckles. "And to the north, sixty miles distant, lies Mount Conway, a typical mesa. Twenty miles to the south is Mount Sarah, named after Chief Officer Conway's wife. It's usually called 'the Sallies,' since it consists of five separate domes of red conglomerate. So you see that geologically Cragge Rock doesn't fit in. There's quite a few theories about its origins, folks. One is that it was formed by a submarine volcanic eruption when this was all part of the ocean bed—that the Rock was an extrusion of molten matter from the core of the planet. If so, it has been further shaped by millions of years of erosion since the sea floor rose to become this island continent."

The Rock squatted on the skyline, glowering red in the almost level rays of the westering sun, an enormous crimson slug. It possessed beauty of a sort.

"We spend five full days here,

folks," went on the driver. "There's a hotel and an aboo settlement—most of the boos speak English. They'll be happy to tell you *their* legends about the Rock—Wuluru they call it. It's one of their sacred places, but they don't mind us coming here as long as we pay for the privilege. Basics, of course, are all taken care of by the tourist bureau, but if you want any curios you'll have to fork out to the boos for them. See the way the Rock's changing color as the sun gets lower? And once the sun's down it'll slowly fade like a dying ember—"

The Rock was close now, towering above them, a red wall against the darkening blue of the cloudless sky. Then they were in its shadow and the sheer granite wall was purple, shading to cold blue . . . Sunlight again, like a sudden blow, a last circuit of the time-pocked monolith and a final stop on the eastern side of the stone mountain.

The tourists left the coach, shivering a little in the still, chilly air.

"It has something," Tanya whispered. "Something," Moira agreed.

"Ancestral memory?" asked Deane.

"You're prying," snapped the fat girl.

"I'm not, Moira. But I couldn't help picking up the strong emanation from your minds."

Tanya laughed. "Like most

modern Australians we're a mixed lot and in our fully integrated society most of us have some aboriginal blood. But why should Moira and I feel so at home here—both at home and hopelessly lost?"

"If you let me probe—" suggested Deane gently.

"No."

Grimes sympathized with her. He knew all too well what it was like to have a trained telepath, no matter how high his ethical standards, around.

But he said, "Spooky's to be trusted. I know."

"You might trust him, John. I don't know him well enough."

"He knows us too bloody well!" said Moira.

"I smell steak," said Grimes, changing the subject.

The four of them walked to the open fire, where the evening meal was already cooking.

### III

**D**AWN on the Rock was worth waking up early for. Grimes stood with the others, blanket-wrapped against the cold, and watched the great hulk flush gradually from blue to purple, from purple to pink. Over it and beyond it the sky was black, the stars very bright, almost as bright as in airless space. Then the sun was up and the Rock stood there, a red island

in the sea of tawny sand, a surf of green brush breaking about its base. The show was over. The party went to the showers and toilets and then, dressed, assembled for breakfast.

After the meal they walked from the encampment to the Rock. Tanya and Moira stayed in the company of Grimes and Deane, but their manner toward the two spacemen was distinctly wary; they were suddenly more interested in their guidebooks than in conversation. Their way passed the aboriginal village—a huddle of crude shelters constructed of natural materials and battered sheets of plastic. Fires were burning and gobbets of unidentifiable meat were cooking over them. Women—naked, with straggling hair and pendulous breasts, yet human enough—looked up and around at the well-clothed, well-fed tourists with an odd, sly mixture of timidity and boldness.

One of them pointed to a leveled camera and screamed, "First gibbit half dollar!"

"You'd better," advised the driver. "Very commercial minded, these people."

Men were emerging from the primitive huts. One of them approached Grimes and his companions, his teeth startlingly white in his coal-black face. He was holding what looked like a crucifix.

"Very good," he said, waving it in front of him. "Two dollar."

"I'm not religious—" Grimes began, to be cut short by Tanya's laugh.

"Don't be a fool, John," she told him. "It's a throwing weapon."

"A throwing weapon?"

"Yes. Like our boomerangs. Let me show you." She turned to the native, held out her hand. "Here. Please."

"You throw, missie?"

"Yes. I throw."

Watched by the tourists and the natives she held the thing by the end of its long arm, turned until she was facing about forty-five degrees away from the light morning breeze, the flat surfaces of the cross at right angles to the wind. She raised her arm, threw with a peculiar flick of her wrist. The weapon left her hand, spinning, turned so that it was flying horizontally, like a miniature helicopter. It traveled about fifty yards, came around in a lazy arc, faltered, then fell in a flurry of fine sand.

"Not very good," complained the girl. "You got better? You got proper one?"

The savage grinned. "You know?"

"Yes. I know."

The man went back into his hut, returned with another weapon. This one was old, beautifully made and lacking the crude designs that had been burned into the other with redhot wire. He handed it to Tanya, who hefted it approvingly.

She threw it as she had thrown the first one—and the difference was immediately obvious. There was no clumsiness in its flight, no hesitation. It flew more like a living thing than a machine. Its arms turned more and more lazily as it came back and Tanya, with a clapping motion, deftly caught it between her hands. She stood admiring it—the smooth finish imparted by the most primitive of tools, the polish of age and of long use.

"How much?" she asked.

"No for sale, missie." Again the very white grin. "But I give."

"I shouldn't, but—"

"Take it, lady," said the driver. "This man is Najatira, the chief of these people. Refusing his gift would offend him." Then, businesslike: "You guide, Najatira?"

"Yes. I guide."

**H**E BARKED a few words in his own language to his women, one of whom scuttled over the sand to retrieve the first, fallen throwing weapon. Then, walking fast on his big, splayed feet he strode toward the rock. Somehow the two girls had ranged themselves on either side of him. Grimes looked on disapprovingly. Who was it who had said that these natives were humanoid only? This naked savage, to judge by his external equipment, was all to human.

"Cave," said Najatira, pointing.

The orifice, curiously regular, was exactly at the tail of the slug-shaped monolith. "Called by my people the Hole of Winds. Story say in Dream Time wind came from there, wind move world. Before, world no move. No daytime, no nighttime."

"Looks almost like a venturi, Captain," Dean remarked to Grimes.

"Certainly looks almost too regular to be natural. But erosion does odd things. Or it could have been made by a blast of gases from the thing's inside."

"Precisely," said Deane.

"But you don't think so? No. It would have been impossible."

"I don't know what to think," admitted Deane.

Their native guide was leading them around the base of the Rock. "This Cave of Birth. Tonight, ceremony. We show you. And there- look up. What we call the fishing net. In Dream Time caught big fish."

"A circuit," muttered Grimes. "Exposed by millennia of weathering." He laughed. "I'm getting as bad as you, Spooky. Nature comes up with the most remarkable imitations of man-made things."

So it went on, the trudge around the base of the monolith, under the hot sun, while their tireless guide pointed out this and that feature. As soon as the older members of the party began to show signs of

distress the driver spoke into his wrist transceiver and within a few minutes the coach came rumbling over the rough track and then, with its partial load, kept pace with those who were still walking. Grimes and Deane were among these hardy ones, but only because Tanya and Moira showed no signs of flagging and because Grimes felt responsible for the women. After all, the Survey Service had been referred to as the policeman of the Galaxy. It was unthinkable that two civilized human females should fall for this unwashed savage but already he knew that civilized human females are apt to do the weirdest things.

At last the tour came to an end. Najatira, after bowing with surprising courtesy, strode off toward his own camp. The tourists clustered hungrily around the folding tables that had been set up, wolfed the sandwiches and gulped tea.

During the afternoon there were flights over the Rock and the countryside for those who wished them, a large blimp having come in from the nearest airport for that purpose. This archaic transport was the occasion for surprise and incredulity, but it was explained that such aircraft were used by *Lode Jumbuk's* people for their initial explorations.

"The bloody thing's not safe," complained Deane as soon as they were airborne.



Grimes ignored him. He was looking out and down through the big cabin windows. Yes, the Rock did look odd, out of place. It was part of the landscape, but it did not belong. It had been there for millions of years—but still it did not belong. Mount Conway and Mount Sarah were natural enough geological formations—but, he thought, Cragge Rock was just as natural. He tried to envision what it must have looked like when that upwelling of molten rock thrust through the ocean bed.

"It wasn't like that, Captain," said Deane quietly.

"Damn you, Spooky—get out of my mind."

"I'm sorry," the telepath told him, although he didn't sound it. "It's just that this locality is like a jigsaw puzzle. I'm trying to find the pieces and make them fit." He looked around to make sure that no one else in the swaying, creaking cabin was listening. "Tanya and Moira—The kinship they feel with Najatira—"

"Why don't you ask them about it?" Grimes suggested, jerking his head toward the forward end of the car, where the two girls were sitting. "Is it kinship—or is it just the attraction that a woman on holiday feels for an exotic male?"

"It's more than that."

"So you're prying."

"I'm trying not to." He looked down without interest at Mount Conway, over which the airship

was slowly flying. "But it's hard not to."

"You could get into trouble, Spooky. And you could get the ship into trouble."

"And you, Captain."

"Yes. And me." Then Grimes allowed a slight smile to flicker over his face. "But I know you. You're on to something. And as we're on holiday from the ship I don't suppose that I can give you any direct orders—"

"I'm not a space lawyer, so I'll take your word for that."

"Just be careful. And keep me informed."

While they talked the pilot of the blimp, his voice amplified, had been giving out statistics. The conversation had been private enough.

**T**HAT night there was the dance. Flaring fires had been built on the sand in a semicircle, the inner arc of which faced the mouth of the Cave of Birth. The tourists sat, some on the ground and some on folding stools, the fires at their backs, waiting. The sky was black and clear, the stars bitterly bright.

From inside the cave came music of a sort—a rhythmic wheezing of primitive trumpets, the staccato rapping of knocking sticks. A yelping male voice seemed to be giving orders rather than singing.

Grimes turned to say something to Tanya, but she was no longer in her place. Neither was Moira. The

two girls must have gone together to the toilet block; they would be back shortly. He returned his attention to the black entrance to the cave.

The first figure emerged from it, crouching, a stick in his hands. Then the second, the third—something was oddly familiar about the ritual, something that didn't make sense or made the wrong kind of sense. Grimes tried to remember—to decide what it was. Dimly he realized that Deane was helping him, that the telepath was trying to bring his memories to the conscious level.

Yes, that was it. That was the way the Marines disembarked on the surface of an unexplored, possibly hostile planet, automatic weapons at the ready.

Twelve men were outside the cave now, advancing in a dance-like step. The crude, tree-stem trumpets sounded like the plaint of tired machinery and the noise of the knocking sticks was that of cooling metal. The leader paused, stood upright. Fingers in mouth, he gave a piercing whistle.

The women emerged, carrying bundles, hesitantly, two steps forward, one step back. Grimes gasped in disbelief. Surely that was Tanya, as naked as the others—and there was no mistaking Moira. He jumped to his feet, ignoring the protests of those behind him, trying to shake off Deane's restraining hand.

"Let go—"

"Don't interfere, Captain!" The telepath's voice was urgent. "Don't you see? They've gone native—no, that's not right. But they've reverted. And there's no law against it."

"I can still drag them out of this. They'll thank me after." He turned around and shouted, "Come on, all of you! We must put a stop to this—"

"Captain Grimes." The coach driver's voice was angry. "Sit down, sir. This sort of thing has happened before and it's nothing to worry about. The young ladies are in no danger."

"It's happened before," agreed Deane unexpectedly. "With neurotic exhibitionists, wanting to have their photographs taken among the savages. But not this way."

Then, even more unexpectedly, Deane was running out across the sand. Najatira advanced to meet him, not in hostility but in welcome.

Grimes yelled, "Come back, Spooky—come back here—"

He didn't know what was happening but he didn't like it. First those two silly bitches—and now one of his own officers. What the hell was getting into everybody? Followed by a half dozen of the other men, he ran toward the cave's mouth. His way was barred by a line of the tribesmen, holding



BERKLEY SF



## one generation beyond Dune

is where **DUNE MESSIAH** begins. Author Frank Herbert returns to the duneworld of Arrakis for an epic of imperial intrigue and human ecology—an epic that spans the universe. That's why we can tell you where **DUNE MESSIAH** begins, but not where it ends. . . .

*We're reprinting fast, but your book-seller may be out of stock. Order this and other Frank Herbert books today:*

**RUSH ME:**

- ☐ copies of **DUNE MESSIAH**  
(N1847) 95¢
- ☐ copies of **WHIPPING STAR**  
(S1909) 75¢
- ☐ copies of **THE EYES OF HEISENBERG**  
(S1865) 75¢
- ☐ copies of **DESTINATION: VOID**  
(S1864) 75¢
- ☐ copies of **THE SANTAROGA BARRIER**  
(S1615) 75¢

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Include list price plus a dime postage for each title.

**BERKLEY PUBLISHING CORP.**

Dept. mhk

200 Madison Ave., New York 10016

their sticks now like spears (which they were)—not like make-believe guns. Najatira stood proudly behind the armed men and on either side of him stood the two girls, a strange, arrogant pride in every line of their naked bodies. And there was Deane, a strange smile on his face, too, seemed suddenly to have acquired lines of authority.

"Go back, John," he ordered. "There is nothing that you can do." He added softly: "But there is much that I can do."

"What the hell are you talking about, Spooky?"

"I'm an Australian, like Moira and Tanya here. Like them, I have the Old Blood in my veins. Unlike them, I'm a spaceman. Do you think that after all these years in the Service I, with my talent, haven't learned how to handle and navigate a ship, any ship? I shall take my people back to where they belong."

**A**ND then Grimes *knew*. The knowledge came flooding into his mind from the mind of Deane, from the minds of the others, whose ancestral memories had been awakened by the telepath. But he was still responsible. He must still try to stop madness.

"Mr. Deane!" He strode forward firmly. He brushed aside the point of a spear that was aimed at his chest. He saw Tanya throw something and sneered as it missed his head by inches. He did not see

the cruciform boomerang returning, was aware of it only as a crashing blow from behind, as a flash of crimson light, then darkness.

He recovered slowly. He was stretched out on the sand beside the coach. Two of the nurses among the passengers were with him.

He asked, as he tried to sit up, "What happened?"

"They all went back into the cave," the girl said. "The rock the rock closed behind them. And there were lights. And a voice, it was Mr. Deane's voice, but loud, loud, saying, 'Clear the field clear the field! Get back, everybody—get well back. Get well away—' So we got well back."

"And what's happening now?" asked Grimes. The nurses helped him as he got groggily to his feet. He stared toward the distant Rock. He could hear the beat of mighty engines and the ground was trembling under his feet. Lights flashed here and there on the surface of the monolith. Even with the knowledge that Deane had fed into his mind he could not believe what he was seeing.

The Rock was lifting, its highest part suddenly eclipsing a bright constellation. It was lifting and the skin of the planet protested as the vast ship, that for so long had been embedded in it, tore itself free. Tremors knocked the tourists from their feet but somehow Grimes remained standing, ob-

livious to the shouts and screams. He heard the crash behind him as the coach was overturned but he did not look.

The Rock was lifting, had lifted. It was a deeper blackness against the blackness of the sky, a scattering of strange, impossible stars against the distant stars, a bright cluster at first that dimmed and diminished, that dwindled faster and faster and then was gone, leaving in its wake utter darkness and silence.

The silence was broken by the coach driver.

He said slowly, "I've had to cope with vandalism in my time—but nothing like this. What the Board will say when they hear that their biggest tourist attraction has gone I hate to think about—" He seemed to cheer up slightly. "But it was one of your officers, Captain Grimes, from your ship, who did it. I hope you enjoy explaining it!"

**G**RIMES explained, as well as he was able, to Commander Lewin.

He said, "As we all know, sir, there are these odd races, human rather than humanoid, all through the Galaxy. It all ties in with the Common Origin of Mankind theories. I never used to have much time for them myself, but now—"

"Never mind that, Grimes. Get on with the washing."

"Well, Deane was decent enough

to let loose a flood of knowledge into my mind just before that blasted Tanya clonked me with her boomerang. It seems that millions of years ago these stone spaceships, these hollowed out asteroids, were sent to explore this Galaxy. I got only a hazy idea of their propulsive machinery—but it was something on the lines of our inertial drive and something on the lines of our Mannschenn Drive, with auxiliary rockets for maneuvering in orbit and so forth. They were never meant to land—but they could, if they had to. Their power? Derived from the conversion of matter, any matter, with the generators or converters ready to start up when the right button was pushed—but the button had to be pushed psionically. Get me?"

"Not very well. But go on."

"Something happened to this ship, to the crew and passengers of this ship. A disease, I think it was, wiping out almost all the adults, leaving only children and a handful of not very intelligent ratings. Somebody—it must have been one of the officers just before he died—got the ship down somehow. He set things so that it could not be reentered until somebody with the right qualifications came along."

"The right qualifications?"

"Yes. Psionic talents, more than a smattering of astronautics and descended from the Old People."

"Like your Mr. Deane. But what about the two girls?"

"They had the Old Blood. And they were highly educated. And they could have been latent telepaths."

"Could be," Lewin smiled without much mirth. "Meanwhile, Lieutenant, I have to try to explain to the Olganan government, with copies to operators of transgalactic clippers and to our own masters, including your Commodore Damien. All in all, Grimes, it was a fine night's work. Apart from the Rock, among those who left or were kidnaped were two TG passengers and a Survey Service officer."

"And the tribe."

"The least of the Olganan government's worries and nothing at all to do with TG or ourselves. Even so—" This time his smile was tinged with genuine, but sardonic, humor.

"Even so?" echoed Grimes.

"What if those tribesmen and women decide to liberate—I suppose that's the right word—those other tribespeople, the full-blooded ones who're still living in the vicinity of the other stone spaceship? What if the Australians realize, one sunny morning, that their precious Ayers Rock has up and left them?"

"I know who'll be blamed," said Grimes glumly.

"How right you are," concurred Lewin. ★



# **CHOICE**

**J. R. PIERCE**

**All the pleasures of Earth were  
his for the taking—except one!**

**W**HEN, after dinner, Harvey Adam sat down before the communication alcove and keyed Myra's number the puzzle and excitement of his unusual day dropped away from him. As the alcove glowed with the light of Myra's room he experienced that part of his life which, now old, was yet ever fresh and new. He saw her in profile, seated at her dressing table. She wore a soft, thin gown which hung in gentle folds about her body. She was looking at herself in the mirror, her head tilted back a little. The outlines of her forehead, nose, mouth and chin had the classic regularity which he admired so much but could never quite recollect except in seeing her. The slight and unusual rounding of her features saved their perfection from severity and made him feel ever protective. The dressing table was littered with bottles and a tissue had fallen to the floor. It lay incongruously on the soft, deep-pile rug at her right.

Myra ignored the calling signal for a moment, continuing her examination. Then she turned slowly and smiled at him.

"Harvey," she said in her soft, warm voice. "I was expecting you." The tissue on the floor caught her eye. With a slightly vexed expression she leaned over to pick it up. The loose, low-cut bodice of the gown fell away from her body, revealing a perfect breast. With her hand on the tissue

she looked up and smiled for a moment. "I'm messy," she said. She quickly stuffed the tissue in the disposal and sat up, touching her blond hair lightly with her hands. The gesture showed her arms to perfection.

"And did you have a good day, dear?" Myra asked.

"Good but exciting," he replied. "I don't want to talk shop tonight, Myra. Just talk. And just see you. What did you do today?"

"Oh, nothing that would interest a historian," she replied.

"You must have done something," he coaxed.

"All right, then, I bought this gown," she told him, standing and walking toward him. The filmy material fell sheer and straight, outlining her figure wherever it touched—the points of her breasts, the roundness of her belly. He could see the rest of her body dimly through the fabric, more teasing and tantalizing than bare flesh. She turned around once, then faced him and asked anxiously, "Do you like it?"

"Immensely," he said. "Every woman should have one."

She looked a little hurt.

"But it especially suits you."

She smiled in mock relief. She moved the soft, light, comfortable chair from the dressing table to face him and sat down, her legs outlined by the translucent gown.

"Where did you find it?" he asked.

The conversation turned to shopping and to the trivialities of the day, which Myra seemed to find of consuming interest. Harvey found this very touching and amusing. But gradually, their interest returned to the gown. Harvey remarked on the texture.

"Would you like to feel it?" Myra asked. Harvey did, putting his hand through the filmy barrier at the face of the communication booth. As the barrier which gave him access to Myra's communication booth gave way his hand obscured his view of Myra where it passed through the film. But he felt the material of the gown between his fingers. Then he felt Myra's softness through the gown. The slithery softness of the fabric added a sensation all its own. Myra's hand came toward him, a shapely gray ghost emerging from the film. His vision clouded as the shimmering hand pushed him on the chest.

"Go away," Myra said. "I thought you wanted to talk."

Harvey grabbed the hand and pulled their bodies together. "I do," he said in a whisper, pressing his face through the film toward an unseen ear.

"Don't muss the gown," Myra said in alarm (simulated, he thought).

"Then take it off," he told her as she drew back. He could see her again.

"Really?" she asked, smiling.

He nodded solemnly. "Really."

Bending toward him, she took the hem of the gown lightly in both hands and slowly raised it, gathering folds of cloth into her hands. She smiled and raised the gown over her head; her face emerged and she stood with arms upthrust, naked.

"You and me," he said with a chuckle. Quickly he stepped through the film of the communication cubicle to put his arms about Myra. All sight was gone now but he could feel whatever his hands and body sought.

**L**ATER that night, after he and Myra had rung off, he lay in bed and thought of the goodness of life. Satisfaction was dearly bought. There had been the years of childhood, the peer group, the computer tutoring, the minors who tended one by assignment, not from choice. There had been the troubled time of adolescence: intellectual yearning without the intellectual discipline necessary for fulfillment; and physical yearning which dissolved into frankly curious explorations and selfish conflicts of personality.

Mating and parenthood were touching for those who were chosen (he had been). But, each knew that he had *been* chosen. Mating was a rite, a duty. It could be moving; it could be exasperating; it could be frantic. But one was chosen; one did not do his own



choosing. Only in adulthood did one have the competence and ability to select the work one was able to pursue with confidence of success. Only in adulthood could one search the whole world for friends like his Harvey's friends, Myra and Donald. The computer had been an aid in finding them but the choice had been his own.

In his euphoria of self-congratulation Harvey Adam forgot the challenge and excitement of a day which had put him off his schedule for a whole hour. He sank into restful, blissful sleep.

To have missed schedule by an hour was an anomaly in his life. A modestly self-acknowledged genius, he prided himself on order as well as achievement. There was a time and a place for everything for work, for sport, for friends. For calm enjoyment, each had its—his, her—place.

Ordinarily he left the library at five o'clock, stepping from his anachronistic office into the transportation cubicle to which his merit entitled him. In less than a minute he was at the athletic club, delivered directly to the locker room. There he stripped and zipped his spare but handsome body into his clinging sports suit. Cords gathered up and goggles in hand, he went through the door marked skiing. He stepped on the platform, placed his feet in the sockets and touched a button. The sockets gripped his feet and ankles

firmly. He plugged in the cords. After a moment's thought, he typed ALTA on the keyboard. He put his hands through the dangling leather loops. Standing upright, knees slightly bent, he pulled the goggles over his noble features.

Simulation was different from communication with another human being. Sight and touch went together. There was no barrier between himself and the world in which he found himself. To all his senses to all at once Harvey was standing on sun-drenched snow. He looked admiringly down familiar slopes, up at the sparkling mountains, the clear horizon and the deep blue of the cloudless sky. The air was almost still. The dry, newfallen snow was scarcely touched. He could see two tiny skiers far below, sweeping slowly into and out of sight as they turned and twisted. Grasping the poles that hung from his wrists, he pushed himself forward, enchanted by the effortless glide of the skis on the snow. The cold air blew keenly against his cheeks, contrasting pleasantly with the warmth of the sun. He made a long, swift traverse and, turning in a flurry of powder, was away down a familiar and favorite course.

But many courses are familiar. He could have chosen the narrow, windy, changing trails of Stowe or Sugarbush in the east. He could have skied Zermatt in the

Alps or down the valley under the cable railway spanning the glacier of Mont Blanc or in the mountains of South America or New Zealand. Tens of skiing sites were stored in the club's computer, complete in every geographical detail, each programed for a variety of weather and for every possible choice and motion of the skier. Each user had the run to himself, save for distant phantoms who added interest. All depended on skill, on his skill at testing himself against the mountain and the snow. It was not as good as the real thing it was better.

Once Harvey had gone all the way to Zermatt to make sure, despite the danger of injury in case of a fall. He had had to be fitted with ski boots by a grumpy, substandard human attendant. He had had to lace them on, an onerous and unfamiliar task. A chair lift had taken him uncomfortably to the top of the slope. The weather had been dull, the snow tracked by too many others. The trip had been instructive but the day had been wasted as sport.

So, at five o'clock of every day, Harvey enjoyed better-than-real skiing at the athletic club. Or, for variety, it might be better-than-real surfing on the most magnificent rollers in the world. Or out of it. It might be superb sailing across sparkling seas in an eighteen-footer. Then Harvey sailed

against phantom boats with phantom yachtsmen, subject to the same wind and currents. The phantoms sailed as well as a partition, of the computer could sail them, not knowing what gusts another partition would subject them to. Sailing is chancy. Harvey frequently beat the phantoms.

Some men played tennis, squash, or even soccer against phantom opponents. Harvey regarded this as beneath human dignity. One used machines. One had dealings with people.

But today at five-thirty o'clock, Harvey had not been zipped into his sports suit, experiencing the ski slopes of Alta, or the rollers of Oahu, or sailing off the coast of Maine. He had been at his anachronistic wooden desk in his anachronistic office at the library, holding an anachronistic book in his hand and reading it avidly. The book was *Recognizing Patterns*, edited by P.A. Kolers and M. Eden, MIT Press, 1968. One chapter of the book had put him on a new trail.

**O**VER some hundreds of years, computers had supplied man's goods and implemented man's services with admirable efficiency. They flexibly embodied all man's discoveries and inventions and wholly automated the routines of production and service, including the teaching of such intel-

lectual skills as languages and mathematics. Computers also accumulated cross-indexed, abstracted and reproduced on demand—all of man's recorded knowledge, wisdom, speculations, art and his everything else, with an antlike energy and a pack-rat thoroughness that were less and more than human.

Agronomists, surgeons, physicists continually edited their current files. These were used in the teaching and practicing of their arts. Good or bad, that which was eliminated from the current files was not lost; it was retained in secondary storage, where it was mechanically related to an accumulation of centuries in an increasingly inaccessible jumble of data about what the world was and was not like, about events that had or had not taken place, about men who had or had not lived.

In the age of the flowering of the computer, men had been so relieved, surprised and enchanted with human progress that they took the old for granted while demanding the new. Some successful part of that new was then added to the taken-for-granted old. No one asked when or how the world of now had come to be. The past became buried in a mountain of uncritically accumulated detail. All this was instantly accessible electronically, but it far outweighed human ability to comprehend or verify. It became a

junk-pile of data, inaccessible to the human mind.

Or was it inaccessible? A few men were interested in that problem. A very few, like Harvey, tried to turn the computer on itself in ferreting out a track through the past. Formidable obstacles lay in the way. Harvey had had to learn how the computers and the machines they controlled really worked. He had traveled strange byways.

Many men could feed new locations or games into the sports simulators. Harvey was one of the very few who really knew how the simulators simulated. He could have programed into them (as had been done ages ago) the complex shifts of point of view which accompanied a rapid turn or a tumble into the snow. It had been gratifying to him to notice for the first time the slight graininess that accompanied processor overload during such sequences.

Harvey's studies took him to things less familiar than the sports simulators. Behind the electronic records, he had found, were early microfiche cards. These he located in a library building, where he then made his office. After sending little servodriven constructs through passages inaccessible to human beings, he had at last held a microfiche card triumphantly in his hand. Behind microfiche, he had discovered printed books. Those that seemed

relevant to the trail he sought now lined the shelves above and beside his desk. His latest find The Kolers-Eden collaboration contained a chapter by J. Weizenbaum, called *Contextual Understanding by Computers*.

The chapter described a trivial twentieth-century computer program which "conversed" by teletypewriter as unintelligibly as a twentieth-century psychiatrist, giving trite and ambiguous but leading responses to human questions or statements. The program worked through key words and a superficial analysis of punctuation and grammatical structure. All of this was small and dull. But, there were two astonishing and exciting points.

UNEXPECTEDLY, many who had participated in the experiment had persisted in believing that there was a human being at the other end of the teletypewriter link, even when told otherwise. The ambiguous responses seemed pertinent. With the conversation went a sense of communion. Whence? Harvey wondered. Self-communion it must have been, born of wish, not fact. But, he reflected, all men were given to self-communion, to recollection, fantasy and imaginary conversations with others. In self-communion, things always turned out the way one wished. Self-communion was empty.

The second, more exciting point, was that in that dim and distant day some men had believed that computers could think even as men do. A logician named Turing had put it very well in a paper in a journal called *Mind*. If in conversation you could not distinguish a computer from a human being, could you say that the computer did not think? Harvey had touched the keyboard in inquiry and had found *Mind* hopelessly obscured in lists of references. Tomorrow, he had thought. For he had suddenly realized that he had overstayed his usual time of departure by an hour. He had left directly for his apartment, his mind churning with a new thought, his senses on a new track.

At the beginning of an era, he had reflected, man had misjudged the most powerful force in his hands. Computers as thinking beings, indeed? And men who could not distinguish a machine from another human being? These thoughts and what part they had or had not played in man's past, had distracted him through an unsatisfactory dinner. Finally his good sense, his value of order, had reasserted itself. Everything to its place. Work and sport. Inquiry and friendship. Too much of one spoiled the other. Harvey had dismissed his speculations and, with familiar and pleasant anticipation, had called Myra and passed the pleasant evening already re-

counted. At the end of it, he had fallen into blissful sleep. He awoke refreshed and ready to meet the day's new challenge.

Some men work best in the morning, sinking into 'confused fatigue' as the day passes. Others do not really wake up until the evening advances. Harvey despised both failings. He was always ready for the task at hand. He awoke clear-eyed, stepped into the fresher, and emerged clean-bodied. Dressing in the clothing his dispenser provided, eating his usual spare breakfast - these took little time. Shortly he stepped into the transportation cubicle and thence into his office, exactly on schedule.

Harvey faced an untidy desk, but that was soon set in order. With the book in front of him, his fingers on the console, he made and edited a very brief list. Locate the article by Turing. Trace it backward if possible, forward certainly. He pondered a few moments. That was all he could think of as a start.

He located the article in a quarter of an hour and skimmed through it with interest. He admired Turing's examples and thought his exact phrasing of the problem fitting:

"The new form of the problem can be described in terms of a game which we call the 'imitation game.' It is played with three people, a man (A), a woman (B), and an interrogator (C) who may be

of either sex. The interrogator stays in a room apart from the other two. The object of the game for the interrogator is to determine which of the other two is the man and which the woman.

"We now ask the question, 'What will happen when a machine takes the part of A in this game?'"

Backward tracing from Turing's paper proved a sterile task. With their mechanical thoroughness of cross-referencing by associated words and descriptors the computers had provided countless trails into the past, all of them false or profitless.

The tracing into the future was bewildering. It led him into a strange field called *artificial intelligence*, an agglomeration of unproductive work in which it was hard to find any unifying or identifying principles except confusion and enthusiasm. Of course computers could prove theorems but left to themselves they did not create new mathematics interesting or useful to men. Rather, they endlessly elaborated, as they had in burying man's past in meaningless detail. Computers could play games, could pile up blocks like a child, could perform some recognition tasks.

Harvey already knew this. Those who worked on artificial intelligence must have known it. What they, like their machines, had

lacked was human purpose. The sports simulators which he enjoyed, the computers he was using in finding a track through the past, were admirable because man had adapted them to human need, not because they aped nature or human function. Who would admire an airplane which aped a bird, landing in a tree and clinging to a limb? Who would admire a second-rate copy of a human being? Especially when computers could do so many things that unaided man could not do?

In this morass Harvey found little that informed him, but a few things that amused him. One was an actual record of an engineer maliciously badgering Weizenbaum's "doctor" program. The computer wrote in capitals, the man in lower case letters. Part of the printout ran:

I'M A DOCTOR AND I'D LIKE  
VERY MUCH TO HELP YOU IF I  
CAN. PLEASE TELL ME WHAT  
YOUR PROBLEM IS.

i want to write music

WHAT WOULD IT MEAN TO  
YOU IF YOU GOT TO WRITE MU-  
SIC

i would be happy

YOU SAY YOU WOULD BE  
HAPPY

yes.

YOU SEEM QUITE SURE

yes

LET'S CONTINUE

okay, okay

I AM NOT SURE I UNDERSTAND  
YOU FULLY

i hate my dog

YOUR DOG

he loves somebody else

BUT YOUR DOG

he loves my cat

WHY DO YOU SAY YOUR CAT

my mother loves my cat

TELL ME MORE ABOUT YOUR  
FAMILY

WHY HAVEN'T YOU SPOKEN  
ABOUT YOUR FATHER, FOR  
EXAMPLE

he's dead

DOES ANY PART OF YOUR  
BODY HURT YOU

yes . . . my nose

DOES THAT SUGGEST ANY-  
THING ELSE WHICH BELONGS TO  
YOU

my ears

IS IT IMPORTANT TO YOU  
THAT YOUR EARS

you are a stupid doctor

WHAT MAKES YOU THINK I AM  
A STUPID DOCTOR

you don't know anything

WE WERE DISCUSSING YOU  
NOT ME

uggle wuggle love you

PERHAPS IN YOUR FANTASY  
WE LOVE TOGETHER

**I**T WAS a strange document. Such behavior toward a human being might have indicated grievance or cruelty. Perhaps there was grievance or cruelty, Harvey thought—but directed toward whom? At Weizenbaum rather

than at the insensate machine? Or, self-directed?

The other thing that amused Harvey he found in a letter on speech recognition, in the *Journal of the Acoustical Society of America*, October 1969. He read:

"It is reasonable to believe that Turing's game may best be approached with the sort of artful deceit that men use in conversation when they want to hide their ignorance and make the most of their knowledge. It would perhaps be easier for a speaking computer to convince the listener that it was so deep as to be unintelligible, and had a cold or spoke with a Merovingian accent, than it would be for a speaking computer to understand what was said and replay sensibly in good, lifelike general American."

Harvey sat back and thought. What strange goings-on at the beginning of the computer age. Kepler, he had read, was fascinated by astrology and a sort of numerology; he had believed in an arithmetical order of the solar system and in the music of the spheres. With the future in their hands, these early computer men had turned their gaze—whither?

And yet, he thought, there was an insidious plausibility about this. He himself had been taught many things by computer programs. He still used some occasionally. He had never thought of them as humanlike, but rather,

as fascinating mechanical games, with a reward of understanding for success. How easily it might have been otherwise.

When a query went outside of the content of a program the machine would respond, for example: "The answer lies in the fields of rings and lattices. If you want instruction, please key 547-3750." But what if the machine had responded: "That was a clever question, Harvey, one that I can't answer. But I have a very good friend who knows, and he would be glad to tell you. Would you like me to introduce you to him?"

*That, and some of the features of the sports simulator, might have fooled even me,* Harvey thought, *when I was a child at least . . .*

The day before Harvey had been so absorbed that he had not noticed the passage of time. This afternoon he kept his eye on the clock during musings which had, for some reason, become disturbing to him. He left promptly at five. At the athletic club he skied down the twisting trails at Stowe. The day's speculations recurred to him at inopportune moments and he fell twice, without injury, of course. He would have been infuriated if he allowed himself such an indulgence, but he had to admit to disquiet.

**A**T HOME, he ate his dinner without the usual enjoyment.

When he called his friend Donald he felt that he really needed human companionship. Was he perhaps dependent, he wondered. Did he need more than human companionship? Did he need someone's help?

The very sight of Donald inspired trust. Solid, gray, with a lined but strong face, he was seated in a shapeless but comfortable chair before a wood fire, smoking his briar pipe. Harvey had often wondered whether the fire were real or simulated. Donald had only smiled when he had asked.

The silky black cocker spaniel at Donald's feet stirred uneasily, its right hind leg twitching, then settled again into quiet contentment. Donald turned slowly toward Harvey, took the pipe from his mouth and smiled slightly.

"Smoky has dreams, too, Harvey," he said. "What are your dreams tonight?"

Harvey felt the wonderful calm that Donald's presence always brought. But he still experienced a trace of the undiagnosable unease that his discoveries and reflections had brought him.

"It isn't dreams tonight, Donald," he replied. "It's my work and what I think about it."

Donald nodded seriously and attentively. "Do you want to tell me about your work and your thoughts?" he asked.

Harvey launched into his explanation: Turing's assertion

that a machine which could not be distinguished from a human being could not be said not to think. The artificial-intelligence cultists who had wanted to use the computer, not for what it was, but to imitate human functions. Weizenbaum's simple-minded computer program which fooled some simple-minded people into believing that they were communicating with a human being. The assertion that Turing's test could be met by clever deceit and fraud rather than by objective performance. How successful a fraud might be if one used today's computers and today's simulation.

Donald listened, attentive and sympathetic, puffing on his pipe, nodding at Harvey's assertions, looking expectant during pauses and urging, "Go on, man," or, "I see," when the pause was long.

Finally Harvey ran down. Like most men who have something to say, he was forced to stop when he had said it. Donald stared at the fire, pulling occasionally at his pipe.

"What do you make of it, Donald?" Harvey demanded impatiently.

Donald looked up.

"Does it bother you, Harvey?" he asked seriously.

"It bothers me very much," Harvey answered almost rudely.

"I can see that it does," Donald said sadly and gravely. "I can see that it does."



Harvey felt contrite. Donald had been his friend, his confessor, his comforter for so long. And now he had troubled Donald.

"What should I do?" he asked.

Donald knocked the dottle from his pipe on the fender.

"You should play a game of chess with me," he said kindly but decisively.

That was always Donald's remedy, Harvey thought. And a good one, too. It always worked. It a-l-w-a-y-s w-o-r-k-e-d—A horrid thought struck Harvey. Sounds came from his mouth without willing or thinking.

"Bumpfun sun billig fenter bright today."

"It was a fine day, Harvey," Donald said without surprise, pulling his chair around and taking the chessboard and pieces from a drawer in the table beside him.

"Blemp spelkins, morder hark," Harvey announced.

Donald looked up as if he hadn't caught the sense of the words. Harvey remained grimly silent. Donald looked as if he were thinking.

"I wouldn't say that, Harvey," Donald finally asserted, looking troubled.

"Why shouldn't I say it?" Harvey demanded.

"It isn't like you, Harvey," Donald told him.

"Why isn't it like me?" Harvey asked.

"Come on, man, let's start the game," it urged.

*The program that is Donald has come to the end of one subroutine, Harvey thought icily, and the best it can do is to try another.* Calmly he turned the communicator off while Donald was putting the pieces on the board. Or—while what was happening? Presumably a simple simulator program was generating a new visual aspect of objects whose descriptions were stored in memory.

**H**ARVEY'S icy, analytical calm persisted for a few minutes more. Was the entire world a toy for his amusement or instruction? No, his childhood peer group had been real enough. He had seen and touched its members without simulator or computer. Ultimately he had lain with some of them. He could almost feel the reality now, the awkward conflict of will and interest, the imperfections in the body of Mary, mother of his last child. Mary of the slightly fallen breasts, hips too broad and knobby knees.

But then, was the communicator a communicator at all or only a simulator which presented what a deluded Harvey really wanted: faint echoes of his thoughts and desires in Donald, the companion in chess. And in Myra—what?

He remembered Mary's number. He keyed it into the communicator. From off-screen he

heard a faint: "Damn the thing I thought I'd turned off."

The voice sounded like Mary's. Mary was the early-awake, early-tired, early-dozing-off kind.

A bleary-eyed woman stumbled naked into sight, squinting with sleepy eyes into the screen. The body was heavier than he remembered Mary's to be, the breasts droopier, the hips wider and the knees the same.

"Harvey," she said. "What on earth are you calling for, damn you?"

Harvey turned off the communicator. He had seen all he needed to see and heard all he needed to hear. That was Mary. How well he knew her. Unreal as Donald might be, the communicator was a communicator. With a growing hope, he keyed Myra's number, Myra whom he had chosen, Myra whom he had grown

to love. On whom he depended— even more than on Donald.

And he saw Myra sitting on the deep-pile rug, her legs folded over one another. A scissors and nailfile lay beside her. She held her left foot in her right hand and was examining it intently. The graceful curve of her back and neck were perfection. She looked up and smiled.

"Hello, Harvey," she said and started to rise. As she leaned over slightly, he could see perfect breasts through the low-cut neck of her gown. He spoke in cold despair.

"Uggle wuggle love you," he asserted.

Myra's eyes grew misty and she smiled tremulously.

"And I love you, too, Harvey," she said. "We love together."

Harvey turned off the communicator. ★

## You Will Enjoy SCIENCE FICTION REVIEW

WANT A VIEW OF SCIENCE FICTION FROM THE INSIDE?

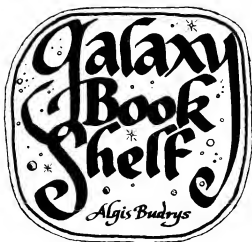
Featured in SFR No. 42 are two such views: *Science Fiction in an Age of Revolution* by Robert Silverberg, and *Open Letter* by Robert A. W. Lowndes.

Also featured are *Off the Deep End*, a column by Piers Anthony, a major review by Norman Spinrad; humor by Greg Benford, erudition by John Boardman; madness by the editor—and fury by the readers in the letter column.

Sample Subscription—2 issues for \$1. \$4 per year.

**SCIENCE FICTION REVIEW**

P.O. Box 3116, Santa Monica, Cal 90403



**L**ARRY NIVEN, in the unlikely event that you didn't already know, is a shining example of what can be done by the technologically oriented writer of science fiction. When he describes a machine, not only do you believe that it would actually work, but he can go on to build layer after layer of detail into his stories, based on the events which must logically have led to the invention of the machine, the immediate social implications of the machine, and the eventual historical turning points implicit in the machine's existence. What I'm saying is he's a kind of combination of George O. Smith and E.E. Smith, but I also want to point out that Niven has a sharply defined and engaging literary personality all his own.

He's been going along for some years now, turning out superior short fiction and a pair of rather good novels called *A Gift from Earth* and *World of Ptavvs*, both published by Ballantine along with his short story collection, *Neutron Star*.

Now Ballantine has brought out *Ringworld* (Ballantine Book 02046.4.095, 95c). Ballantine bills it as "The first major novel from a hard-core science-fiction writer," which is by way of begging the question on *World of Ptavvs* and *A Gift From Earth*.

(In as much as Ballantine originally popularized the term "hard-core pornography" we don't even have to ask what the term "hard-core science fiction" may be intended to mean).

Anyway, Niven has here written an excellent and entertaining science-fiction story in book length. Its social background is consistent with the universe depicted in his previous two Ballantine novels, and with the lead story in *Neutron Star*.

It does range farther and wider in scope than his previous works. It contains one genuinely mind-boggling concept—a ring-shaped artificial world, large enough to circle its sun; as if someone had drawn a circle in space at, say, the Earth's mean orbital distance.

This fantastic construction, several hundred thousand miles in width and millions of miles long, is the eventual site of all sorts of adventures shared by Niven's four principal characters, who are Louis Wu, a human; Nessus, a Pierson's puppeteer; Speaker to Animals, a kzin; and Teela Brown, not only human, nubile and uninhibited, but the fortunate recipient of a brand of luck representing a social concept by Niven on a par with the technological imagination he displays.

The whole story, which is basically a Grail-hunting adventure, is woven together very skillfully and proceeds at a pretty smooth pace. I have minor quibbles about the length of time it takes Niven to get his characters to the Ringworld, and then there are a few meaningless travelogue episodes on the Ringworld. (In gen-

eral, Niven has not done much better at solving some of the problems inherent in this kind of story than Jack Vance did in *Big Planet*. When you write an action story laid on such a huge geographical canvas, you're handicapped by having to describe what happened during the tens of thousands of miles your characters had to cross to get from one scene of action to the next.) Niven doesn't always use these interstices in his action plot to do the most efficient job possible of advancing his protagonist's gradual deduction of the true nature of their mission. But all I really mean to say by that is that although all the episodes are enjoyable, not all advance the plot, and this may possibly annoy you. On the other hand, it may charm you (I've only recently discovered that there are people who are not charmed by Niven's storytelling style).

I also think that Niven's premise depends on evolution's operating very quickly in one instance and far too slowly in another. That's a far more serious quibble, because this contradictory assertion is fundamental to the story. On that basis I'd give this book three stars out of a possible four. That ain't bad.

**K**EITH ROBERTS, author of *Pavanne*, is now back with us with *The Inner Wheel* (Doubleday, \$4.95), a novel about people with

various psionic powers who group together to form *gestalt* personalities in various little out-of-the-way places in England.

*Pavanne*, as you should remember, was an excellent book composed of short episodes in the history of an alternate-world England dominated by steam technology, the Roman Catholic church and the weighty, pallid hand of medievalism. What emerged was an impressive literary achievement for this field; a book whose very structure and style were in exact harmony with its theme. Episodic, moody and picked out in elaborate detail, *Pavanne* sustained itself masterfully through all but its final episode (in which a gratuitous intrusion of the "real" world tended to strike a false note, as if someone had come along with an STP sticker for one of the boats on the Bayeaux tapestry).

*The Inner Wheel* is written in three episodes, one of them first-person for no particular reason. The book is also quite full of elaborate detail and is therefore in trouble, because its structure is neither homogeneous enough to tell a coherent story well, nor broken up enough to be a perhaps effective mosaic. Along this line one might argue that the book is structured to represent the less than perfect facade one would get from contact with a *gestalt* mind. However, if that was Keith Roberts' intention, unfortunately the

effect failed.

Now that doesn't mean *The Inner Wheel* is a bad book. It simply means that on a number of levels it's not as good a book in its own terms as *Pavanne* was.

It does reveal some interesting things about Keith Roberts, a writer whose talent justifies and arouses in us a high degree of curiosity as readers of potential future books by this man.

For one charming thing, it's obvious from part of the content of this book that some of the most attractive images and turns of style in *Pavanne* were perhaps initially stirred in Roberts' mind by a familiarity with Turner's later paintings, and a major characterization is by synthesis from Turner's life.

For another thing, it's possible to see from this book and *Pavanne* that he has a fixed fondness for writing typographical counterpoint—the kind of thing in which a central event unfolds before our eyes in Roman while a chorus comments on it in Italic.

And as an offhand comment, I'd assume that Roberts is having the problem that many writers meet when faced with their first few novels; a resort to episodic technique usually reflects a mistaken conviction that there is something about writing a novel that takes some sort of major regearing of the creative mechanism. Not feeling such a major change within himself, the writer who neverthe-

less wants to bring out a book produces it as a collection of short stories or as an imitation of a collection of short stories.

*Pavanne*, which did originally appear as a series, couldn't help being that way. This one, I suspect, can be called Roberts' first "deliberate" novel, and for a first novel, it's pretty impressive.

However, he's going to be in trouble if his first all-of-a-piece book, which may be his next one, partakes of the thickly detailed prose technique which does so much to slow down the opening third of *The Inner Wheel*, and of the fever-dream chiaroscuro montages of the final third. These are techniques which are much easier to apply to short stories and novelettes than they are to cohesive novels, unless you are that interested in careful prose workings that you don't care how few people can maintain their patience long enough to finish your book.

**F**INALLY we run into a little problem with logic in this particular story. The *gestalt* minds, it seems, find it necessary to preserve world sanity by physically dismantling the British defense establishment. They are depicted as doing this out of the highest idealistic motives. There's a half-convincing substory about a normal human being who acts as their go-between with the "nor-

mal" world. Although at no time does Roberts convince me that this character is actually necessary to the workings of the gestalt minds' plans, he does provide some scenes which are effective to the exact degree that they resemble similar sequences in *1984*. (He also provides one-half of a really effective love story in connection with a female character, many of whose actions are inconsistent with that same character as portrayed in the middle third of the book).

The thing that boggles the mind is that it's not until after the idealistic gestalt minds have dismantled the British defense establishment that they have any contact at all with similar (and presumably similarly idealistic) minds in Europe. At no point in this book are they shown making contact with similar minds in the Western hemisphere or in Asia. In other words, the noble deeds portrayed here consist of a unilateral stripping away of all physical protection from the "normal" population of the British Isles by a group which is not capable of substituting any more effective protection, in the event all the other power groups in the world are not ready to lay down their arms just as soon as the English do.

This strikes me as a pretty dubious way of assuming one's responsibilities as a superbeing. Given the logical frailties of the

"normal" human, it implies that the supermind is perfectly ready to put up with the undetermined possibility of World War III, since it can presumably protect itself, and has the equipment necessary to reclaim whatever rubble remains from the result of removing one key block from an elaborate system of checks and balances. Frankly, I'm not crazy about that idea, and I would think it's a proper demand on a writer to ask him to put something in there to allay my fears for my own skin, me being one of several people totally lacking in psionic abilities.

So, as I was saying, this is not as good a book as *Pavanne*, and I was implying, its faults are large versions of the small traits of *Pavanne*. From a didactic point of view, what this means is that in my opinion Roberts has certain firmly accustomed habits of thought and certain set approaches to story problems, which he ought to spend a little more time analyzing for their various strengths and weaknesses.

On the other hand, and I think the stronger hand, a writer with definite approaches and a definite armamentarium of techniques at this stage in his career is a writer with fortunate characteristics. Furthermore, a writer as fundamentally talented as Roberts is probably in a position to teach the rules-makers more than they could teach him.

But in terms of the writer on one hand and the rules-makers on the other, this particular book is a book for both sides to learn from. To read for pure pleasure, it's not so useful.

**JAMES WHITE'S** *All Judgment Fled* (Ballantine #02016.2.095, 95c) is a book that sounds much better in the describing of it than in the reading.

The story concerns itself with the crews of two space capsules sent to investigate a huge alien starship which has suddenly shown up on the fringes of the Solar System and gone into orbit around the Sun without either communicating or attempting to reply to any Terrestrial communications. The ship just hangs there, twelve million miles out beyond the orbit of Mars, impressing the daylights out of everybody and preserving an enigmatic aspect. The six men sent to investigate it at a fantastic expenditure of effort actually represent the utmost the human race has ever been able to achieve in the way of space travel. Feeling very much like loin-clothed natives in a pair of dugout canoes, they come paddling up to the alien visitor and begin trying to solve the series of problems which confront them.

Successively, they work their way into the ship, encounter voracious alien creatures which

may or may not be intelligent, and, ultimately, not only solve this problem in a satisfactory and heartening manner, but come very near to justifying the effort the reader has had to put into wading through White's storytelling technique.

That technique is not only even more verbose than mine here, it has the serious failing of having crucial events occur either offstage or in curiously crippled form.

What I mean by that last is that although White repeatedly demonstrates an ability to describe a scene in a fully rounded manner, so that you can see the people moving in full color, hear their voices, grip them with your fingers, smell them, and I guess even taste them, quite often when the chips are down, and the storyteller should be at the top of his form, White will suddenly shut off the sound, or the sight, or, as I said above, will actually dodge writing the scene entirely and simply refer to it as having occurred.

Diagnosing writers at a distance is a mugs' game, but I'll take a stab at it for the sake of White's many attractive gifts: I suspect that he generates so much tension within himself while writing a book that he literally cannot bear to come to grips with crucial scenes. If so—*if* so—there are a couple of ways of getting around this, particularly once you recognize the problem, and I sincerely hope he does.

**O**KAY. We all know I'm a Poul Anderson fan.

Therefore, we can imagine the pleasure with which I greeted the appearance of *Satan's World* (Lancer Books 74698-075.75c) a Nicholas van Rijn-David Falkayn story which, as it happens, I had not read before.

Down the pike I merrily went, following the adventures of David and Nicholas, Chee Lan, Adzel, and Muddlehead, ripping down and building up the history of man for the greater glory and profit, naturally, of Solar Spice and Liquors, Inc.

Unfortunately, the farther along you get into the book, the more tired either you or Anderson become; from what started out as a nice, crisp story about interstellar skullduggery, a kidnaping, and an assault on a moon fortress by Adzel the six-limbed Saurian, with a cannon strapped to his back, and all kinds of goodies like that, this gradually becomes a series of scenes more or less individually attractive, but only more or less connected to the front half of the book. Anderson's claim to me is not that of a man who delivers one hundred percent of the goods every time, but of a man who in a vast body of work delivers a hefty percentage of the goods gratifyingly often.

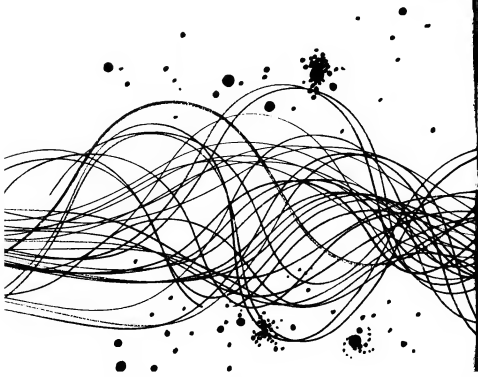
This time, he didn't do it.

That's a shame because he started out quite nicely. ★



# BUT THE SECRET

His would be a discovery  
vital to all mankind—if  
only he could determine who  
was stealing his brain!



# SITS

We dance round in a ring and  
suppose,  
But the Secret sits in the middle  
and knows.

Robert Frost

## I

GREG BENFORD

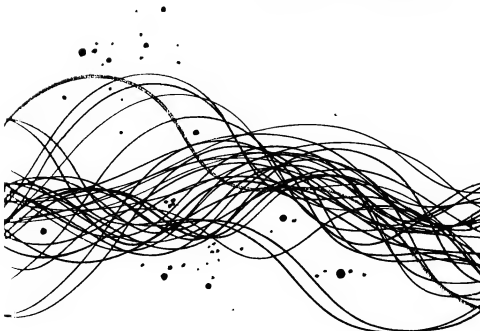
THE day started well enough,  
anyway.

"So we can see that if we use this  
term - "

A light went on above the door  
and blinked insistently.

The room was filled with the  
clicking of recorders going into  
rapid rewind and the scraping of  
desks being maneuvered in pre-  
paration for the dash. Should I try  
to finish the sentence?

I turned to look at the class.  
They gave me an open-eyed, ex-



pectant look like a bunch of Class Two Norms.

"Dismissed." I switched off the AutoWrite and the equations disappeared from the Viewall, a signal for the wholesale desertion of things academic. If anything, Dr. Fredrick Black is a realist.

I picked up my lecture notes and followed my nine-o'clock class out the corridor. It didn't make any difference whether I finished the sentence, anyway; they didn't learn from lectures. Far easier to plug into a Wink-Cram treatment every night and sop up the real juice of your courses directly into the subconscious. If it weren't for the limit on the number of cuts they could take nobody would be here at all.

Down at the end of the corridor, deep in the throng, I could see Winters coming my way. I was stuck behind an obese student who was chuckling over a mistake he'd found in a physics textbook. He had a laugh that sounded like someone beating an inflated bagpipe with a stick.

Fat Boy moved away, though, accompanied by a girl who made a practice of coming in at consultation periods and badgering me with ill-formed questions. Both frowned at me, thinking I'd been eavesdropping. They assumed the air of discovered insurgents, potential conspirators in the Sexual Revolution in Our Colleges that one reads about in wom-

en's magazines but never finds on campus, and snipped away.

Out of the maelstrom of loitering undergraduates struggled George Winters, graduate student extraordinary. He had brown eyes and a quiet, competent look about him.

"We've got it," he said.

"What?" And then I remembered: the phonon modulator.

"I fooled around with it last night and got the efficiency up two orders of magnitude. It wasn't a fundamental problem at all we just weren't working at the right part of the plasma spectrum."

"Quiet," I said, but I didn't think anyone streaming past had heard. I noticed a passing coed with a singularly improbable construction. "Come on."

The crowds are getting worse every year. I dug an elbow into an obstructing undergraduate and made for the downramp. The coed wiggled out of sight, trailed by a worried crowd of engineering students specializing in suspension bridges.

We were caught in a class change and the ramps were clogged. Someone pressed against my shoulder and whispered, "Got the computer cross matrix for the Bio Four-nineteen exam this afternoon. Straight goods, guaranteed." I gave him a shocked look and he recognized my faculty badge and got lost fast. I could have collared him but I figured anybody who

was stupid enough to buy a bogus program deserved it.

The noise receded and the air chilled slightly as we worked our way into the bowels of the building. At these depths only graduate students and occasionally the bigger fish, postdoctoral fellows, were to be seen.

The laboratory, in the fourth sub-basement, was a fluorescent jungle, a riot of invention in a cell of tiled, Spartan logic. I tripped over a cable near the door and danced out of the way of a rig with its entrails scattered. Not that the mess mattered. A clean lab is the one with nothing happening in it.

**S**OME other students were supposed to share the lab but the remains of their equipment were cowering in the corners. They didn't understand Winters; he'd switched fields, worked his way up from a Norm status and wasn't a sixteen-year-old scientific maniac, so of course they didn't like him.

I motioned Winters to lock the door.

"Check for bugs?" I asked.

"All clear this morning. I found one early this week—made up like a light switch, even had a ten-shot photoflash focused on the equipment in case they wanted a visual check—but I think it was just an ordinary monitor from the Interdisciplinary Council for Allied Sciences."

I nodded. The council used hid-

den mikes to keep up on what was going on in the department, but they couldn't use it as scoop material. They were mostly Life Sciences people, anyway. And a biologist wouldn't understand what a physicist was doing even if he got hold of the council's tapes.

"So it finally worked?" I said happily, security matters out of the way.

"Watch the sample."

Winters walked over to the control panel seated among the mountains of electronics and flipped on the power. I looked at the cube of ceramic mounted on braces.

There was a vicious blue flash and a circuit breaker popped from overload. I blinked and looked again.

The sample was gone. No smoke, no noise, no Hollywood effects. Just gone. There was a small pile of dust under the braces.

"I don't believe it," I said, believing it. "We thought we'd get a little synchronous vibration, far up in the band spectrum, but this—"

A feeling, like Maxwell-writing-down-his-equations, Einstein-and-the-perihelion-of-Mercury, ran through me.

"I don't believe it either," Winters grinned. "But it works."

"It's set up the way I outlined?" I said, fingers tripping lightly from amplifier to microwave tunnel to modulator and onward,

checking, memorizing. It wouldn't do to leave the circuitry intact in the lab, where a random light tube dropped down the ventilators could get a snap.

"Perfectly," Winters replied. "I'd been sweeping through the optical and microwave spectrum, trying to pick up the right plasmon resonance. About an hour ago the crystal started to show longitudinal phonon emission in the lower portion of the energy band, but you were in class so I tried to tune it in better on my own. The third harmonic of one of those helicon instabilities showed up on our equipment and then—"

"And then the phonons went into the far nonlinear." I was trying not to dance around the apparatus.

The idea was simple, but we'd been trying for over a year to make it work. Every solid has specific patterns of vibration—normal modes—that in usual circumstances are ordinary, linear, well-behaved oscillations. But if energy is introduced into a sample in just the right way the normal modes can be driven, and the solid will absorb the energy into its lattice. Add enough—and there's the trick—and the lattice can't take it any longer. It gets driven completely off the range of plasmon energies that permit the stable formation of a metallic solid. The sample disintegrates.

"Fine, fine," I said and made a

few notes on the settings of the monitors. I looked into the glass cover of a meter and saw my own face staring back at me. This was going to complicate my status in the physics department, I knew.

I noticed my hands were sweating. "Let me have a look at the recording traces," I mumbled, moving over to the other side of the lab.

"For a shot in the dark, then, we're pretty accurate," I said, talking to cover my uneasiness. "We could have tried for years and never hit a thing. The theory behind nonlinear resonances in solids is just starting to hit the journals now and there hasn't been anything done experimentally yet. We've got a whole new field."

Half self-mocking and half not, Winters and I shook hands. The more I talked the better I felt. Statistically, things like this just don't fall into your lap every day. Or every lifetime.

**WE** TORE down part of the circuitry and rewired it in what seemed like equivalent ways, trying to find out the easiest technique for attaching current inputs. Sometimes the effect would weaken and eventually damp out. But its operating range was broad and convenient for most of the equipment we had; given the time, we could get a gold mine of data. We went to work.

I kept extensive notes in my own shorthand to throw off easy decoding; you can have all the cryptographic computers of the NATO-SAO-ANRAD complex behind you, but if you can't read the notes you've stolen, they're worthless.

And of course I didn't use one of the standard codes they teach you in the lab courses. It's good scientific procedure to code, but the memory-mesh system the instructors hand out is too simple. Any six-year-old could split it open like a ripe watermelon, with a computer link to help him through the algebra.

But now I had a chance to do some pure physics in a debugged lab and I lost track of time. Lunch came. I climbed up out of the pit of professional isolation we'd dug ourselves into and told Winters to go home—he deserved a rest. The preliminary work was finished and I wanted to do some thinking.

I picked up the papers with crude schematics sketched on them, put a double seal on the lab and caught the next ramp up, thinking of crude titles with F. Black and G. Winters printed firmly underneath.

I stopped at the tenth floor and found the nearest InStat station. There was a line outside, mostly advanced graduate students and technicians sending in extra copies of their weekly reports on the off chance the Siftsystem would find some worthwhile measurements

in their data and make a short article out of them.

Stupid. If they hit it lucky—not many did—it meant a quick PhD and a good job. But it was blind. No method. In a few years on the outside they'd fall behind in promotions and stop getting equipment grants, begin to get rattled and blow a research deadline on a big contract. They'd go back down like a grand piano in a ten-gee field, then tail-off just above Norm rank. As I said, stupid.

It came my turn and I already had my abstract written out in my head. I punched in PROGRAM PRIORCLAIM and thumbed in the necessary credits for Top Journal status. If the censor circuits thought it was good enough I'd make *Phys Rev*—it had been *Physical Review* when I was an undergraduate—but beyond that I didn't know who'd be interested. Defense, certainly, and maybe NASA. I filed a request for anonymous sponsorship of publication costs in case anybody wanted to pick up the tab.

**C**OMING out of the booth, I met Randy Davis.

"Socking in another one, Fred?" he said, angling to get a look at the notes I had in my hand. I stuffed them hastily into my pocket.

"No, just monitoring a reference to be sure he doesn't turn in anything without its getting into the journals," I said.

"Know what you mean. Some of these guys pile up a dozen papers in your field without putting a word into print. It's all copy-righted and on tape, so nobody can howl when he dumps all of them into the literature and wipes out six months of your work." Randy's raisin face looked more serious, his weak mouth attempting a scowl, but the effect didn't quite come off. "We ought to have an Ethic passed about it."

I grinned; I was so happy I wasn't even bothered by his trying to drop a microbug shaped like a coat button into my pocket. "Now Randy, you know the Academic Freedom and License Committee has taken it up before. If you're not willing to spend the money on searching the PRIORCLAIM tapes, you don't have the right spirit for research. Getting the journals isn't enough."

He fidgeted with the button a moment longer as we walked back toward the ramp and finally palmed it out of sight. "Well, I needn't worry. I haven't got anything big going on right now. I took a long vacation—four days—and helped my parents move stuff by suborbital down to Australia."

"Oh?" I tried to look interested. "They're retiring?"

"Sure. Dad's forty-seven, two years over maximum already. Had two of his big projects turned down in a row and *bang*—he was out on the street."

"Too bad."

"He doesn't mind. He knew he was giving out and the arthritis was coming back on him. I don't think either of them will last too long, even down there in the desert where it's peaceful. They've both been in technical development. The nerves will only take so much of that."

I nodded without saying anything, thinking about my research. We were coming to my floor so I waved goodbye and got off. My finger watch said five minutes had elapsed since my program went in, so I went over to the printer at the end of the hall and dialed in for my *Phys Rev*.

I caught my name in a quick scan of the contents and thumbed in for ten more reprints. The writeup was standard, just the 9000-word-vocabulary Semantarete job, but you could tell even the computer's discretionary subprogram thought it was important.

It was a quick, clean job. If we played it right there was a lot more meat to be carved out before the pack caught up with us. And catching up would take time; the Ethics only required a general description for establishment of a Priorclaim, and the *Phys Rev* article didn't really have enough specifics to be useful. It would take some searching to find out just what the hell we *had* done, and by then we'd be doing something else.

Some students were waiting outside my office in case the green consultation light went out. I ducked in before they could give me the full mournful look and punched the Autosec over to rejection for any visitors less than Einstein status.

I could let the physics go for a few hours; the politics were going to give me more trouble. Winters was my ace in the hole, and he'd come through. Until I got full tenure status, the department could take him away and cripple my research. I got out the staff roster and went through the names. Normally they were good, hard-working types, but . . .

Professor Ruggles, say. Big lab, lots of students, fat AEC contract. He'd been pouring a few megabucks into the same area that I was in and all he'd gotten was a couple of simple articles clogged with irrelevant data.

*Pretty smart, they would say, steal the idea from Ruggles and give it to one of his graduate students to cover up.*

*Too glib, I always thought. And doesn't the committee to consider his tenure meet about this time?*

The postdoc in the next office put on a leisure tape and the sound filtered through the ventilation grille. I could tell there were no instilled patterns, nothing on the subliminal tracks to learn; a waste of time. It sounded like Bach,

sharp and brisk, and made me feel as though I were being repeatedly hit on the head with a teaspoon.

The best thing to do now was try to work through the theory I'd already developed on the effect, looking for other facets we could explore. The plasmon-phonon coupling was tricky; there might be aspects I had not considered.

I sat down at my desk, dialed my chair to medium rigid, and started to work.

## II

THE rest of the afternoon slid by, mingled with the raw crunch of wadded papers as I threw them away. There were a few things we could look for that were just on the verge of observability. I'd have to tell Winters about them and set up a program to search them out.

I watched the sun creep up the wall, discovering new facets of the Cheer-O-Tile. Leaves rustled outside my window, but I couldn't hear them over the air conditioning.

I was interrupted by the Auto-Sec inquiring if I wished to admit visitors now that the normal consultation period was past. I must have nodded because Randy's voice came over the departmental intercom.

"Hey, don't you ever quit?"

"Didn't know what time it was." I glanced at my desk clock. Seven o'clock, already.



"I'm going home. Want to come?"

"Okay."

I cut off and locked my notes into the desk.

Randy met me on the ramp and we checked out through the automatic guard at the front door. Then down the steps into the quad, a chill fall breeze whipping through the close-packed buildings.

We cut across on a faculty ramp to save time, through one of the arched entranceways to the campus, with just a nominal visual check of our cards. The purple neon Multiversity sign flashed out.

ONLY THOSE WHO TAKE LEISURELY WHAT THE PEOPLE OF THE WORLD ARE BUSY ABOUT CAN BE BUSY ABOUT WHAT THE PEOPLE OF THE WORLD TAKE LEISURELY.

There was a little jingle to go with it, but the audio part was shut off after class hours.

No stars penetrated the muddy smog dome over us. From the other side of the campus I could hear soft rumbles of a young Beethoven rolling into his second symphony—the open air concerts. How long had it been since I attended one?

When I'd come here as an undergraduate, there was time. I read novels, went to art galleries. All that had gradually slipped

away until I found myself reading biographies of prominent scientists instead, -or doing background studies in areas related to my own.

And yet, I didn't have the feeling that I was a drudge. Such a level of work was normal here and I had come to accept it.

Maybe I could change all that, once I got current business out of the way.

We caught the tube. Randy and I lived just a few stops down, safely inside the Multiversity community. It wasn't like Berkeley. Norms and university personnel scrambled up together. How they ever got any work done there, I don't know.

As the tube car pulled away Randy turned the conversation back to my research.

"I noticed you didn't give any of the important specs on your apparatus in *Phys Rev* today," he said.

I made what I hoped was a wry grin. "Until the Review Board demands it for authentication, I'm keeping everything under my hat."

"It sounds like a good solid advance to me. A little pushing and wrangling and you might even get the board to declare it a Break-through." Randy looked at me out of the sides of his eyes. I continued to study the scenery zipping by.

"And who might be doing the wrangling?"

"Oh, anybody with the professional status could do it," he

said too casually. "He'd have to be of higher rank than you, though."

"Somebody like Ruggles?" I said.

"That might not be a bad choice, yes."

**I** WONDERED how Ruggles had been able to pull the strings on this one so fast. Hell, it hadn't been more than a few hours.

"What if I have some other choice? Or don't choose at all?"

Randy frowned. "It's your professional obligation."

I didn't reply.

"Come on," he chided. "You aren't going to hog this all for yourself, are you?"

"You forgot Winters."

"Okay, and Winters. But if a younger staff member stumbles on something this big he shares it with the older members of the faculty. They have the experience to lead him down the right paths in the work that follows. He doesn't keep it for himself."

"Could it be that they want to keep a hand in anything new that comes up, because if they didn't it would be pretty clear that they didn't have any more ideas themselves?"

"We all pull together. Anything else would be like what goes on in the Normzones. It's the same principle that produced the divided society in the first place. Read C.P. Snow."

"Wrong. Snow didn't say anything like that."

Randy shook his head. "He was the first to show that society had begun to split into segments that didn't communicate with each other—and that the process was accelerating."

I thought back over my memories of Snow, the courses in Pragmatic Philosophy I'd had, and the rest of it. "What you don't get over the three-D, Randy, is that old C.P. thought division was bad."

"Bad? How can separation be bad? The future progress of the race depends on the scientific and managerial community's being able to function in freedom and isolation, without having to play footsie with the rabble. Without us they'd all starve to death in a week."

"Probably so. But Snow came from a solid background in what they called the Humanities, and he thought things would go wrong if either group had control and didn't communicate with the other. The books he wrote were fiction, you know, not good honest fact. He wasn't just a scientist, he knew other things."

"Whatever else he worked on didn't last," he said, thinking he'd made a point. But the bit about the books was almost new to me, too; I hadn't remembered them for years. Now that I thought about it, all the talk about Snow's being a

social scientist on a level above Marx and all the rest was just ridiculous.

"Still," Randy went on, "I won't deny that isolation has brought out the worst aspects of the Norms. You can see them loitering around the edges of the Multiversity, not doing anything, wearing sloppy clothes and sneering at people who do an honest day's work. And everybody knows about their women."

I nodded and let him go on: "A few students last quarter got involved with some Norm girls. Administration found out about it, of course, but by the time the campus police got there the boys were beaten up and stripped naked. Hoodlums had painted 'Stuff Your Slide Rule' all over them in indelible ink. The police had to call for a cruising armored car to get them all out safely."

I laughed but I could see from Randy's tight lips that I was supposed to take a lesson from a horrible example.

"If you heed my advice then, Frank, you'll do the right thing by the department. We owe it to the Multiversity, you and I. We've got to support the Multiversity and the Government or the Norms will get into power and we'll all go down the drain."

I looked out at the darkened buildings. We were almost at my stop.

"It's your duty," he said. "Any-

thing less than what's right will get you into trouble. And after all, when you're a senior staff member you'll get the benefits of other people's work, too."

"But that's just the smacker," I pointed out. "That wouldn't be my work."

"Just "

"Y 'know, sometimes I can believe those Norms who say the Great Twentieth Century Scientific Revolution is running out of steam," I said. "There's got to be some reason for all this backbiting."

He was getting irritated. "You're acting like a coward," he said.

"I'm not acting," I said and got off at my stop.

**I**N THE morning I rose earlier than usual. I had stayed up late studying and planning and I couldn't seem to get the grit out of my eyes. I reached across the small kitchenette table and switched on the morning 3D. A news brief.

"New rioting and violence in the Normzones." The announcer shot out the words machine-gun style. "Motorcycle gangs killed three, injured forty today in fighting that followed the monthly announcement of Multiversity scholarship winners." The screen showed a tall, athletic young man in a leather jacket beating an anemic youth with glasses. "Disgruntled applicants for the posi-

tions were set upon by hoodlums shouting "Too good for us, four-eyes?" and violence flared."

The announcer looked directly at the camera with his serious, all-knowing smile. He was a young man, suavely confident, probably a public control specialist with 99-plus rank in all his exams. In a plain gray suit he looked not as much an adult as an overgrown child.

He opened his mouth and I cut him off. His image collapsed and I leered maliciously back at him as he died. I had an extra cup of Perk-O-Cal ("Extra caffeine to keep your nerves in that peak condition!") and started for the physics department. On the way over, ignoring the crowds, I reviewed the internal structure of the department, searching for weaknesses, probing, trying to guess what would come next.

My lower-division lecture started off at an even pace, but after ten minutes I began stumbling through my notes and losing track of what I wanted to say. I realized it wasn't going over. Ruggles kept popping into my stream of consciousness. Excusing class halfway through the lecture isn't good practice—it gives you a reputation for being erratic and overemotional—but it's better than starting to talk to yourself with thirty people watching. I let them go.

The students were milling

around in the hall, confused by the sudden windfall of a whole hour, free of any harangue by a bourgeois lackey of the reactionary university. They quickly made a path for me, probably afraid that if frustrated in my attempt to get away I would leap upon them with mad ravings and run amok down the hall. I'd forgotten to shave that morning and was a little red-eyed from reading too much. The department chairman would hear of this, I was sure.

"Black."

I turned around to see Ruggles, a big man with unruly hair and a sad face, gliding down the ramp from his AEC-financed sanctuary like a fat angel from on high.

Chalk dust lapped tenderly in the valleys formed by his pleated trousers. He gave me a look of equal parts injured trust and assured maliciousness, clamping his hands firmly behind him as if he somehow thought his back was going to fall off.

"Hear you've been doing some work related to what I'm studying," he puffed at me.

I smiled.

"Winters ran across an effect we can't explain at the moment, but it's probably an anomaly."

He raised bushy eyebrows.

"You reported an accident to *Phys Rev*?"

Trapped. "Uh—"

"You know, I've put in a lot of time on these studies and a lot of

people are behind me. I think for the good of the department —"

"You'll get all the information as soon as it's ready. We're just at the beginning stages now."

**B**EFORE he could think of anything more to say I nodded and was gone, 200-meter dash high school champion three times in a row—out, past guard and down the stairs.

Hell. I could snuggle up to Ruggles, of course, let him in at the beginning and have his horde of graduate students tramp through the problem.

And that's what they'd do. Stay in the lab twenty hours a day, take every facet of the effect and run it remorselessly to earth.

Give it a name. The X Effect. Pile up a mountain of papers. Push the AEC into renewing the contract. Get the department a larger appropriation, draw in more graduate students, maybe hold a regional conference here to advertise a little. Cut in everyone qualified for a little of the pie (Biochemical Studies Using The X Effect), spread it around, get kickbacks in return.

*Wouldn't want to antagonize anyone, Dr. Black . . .*

*Professor Black . . .*

*Chairman Black . . .*

You could wind up very comfortably, if the X Effect held out that long. If it didn't, Ruggles would get something to weigh the

scales a little more in his favor with the AEC. You might get a paper or two, not enough to do that much good. Maybe not enough to get tenure.

*Maybe not, Mr. Black . . .*

I slipped my Identcard hurriedly into the slot outside the library and went into the periodical section. The brown metal racks that held the technical journals covered three floors, stiffly worded titles that encased thick shelves of computerese. And those were only the most important printouts; the lesser ones were on tape.

An impressive view, if only one couldn't read.

I made a show of looking up some back references on nonlinear resonances, Jacobean matrices and other random subjects, and then punched for the latest printout on references to my work. The public computer software was slower, since it had a lower priority rating for shared-time readout from the computer's library, but it was also untraceable. No one could find out if I'd checked.

I got the tapes on standby check-out and found a booth. The one I wanted was a half-inch in radius. I found a few routine queries for any future work from backwater colleges, some crossreference notes written by the computer and one request for more data from a Federal agency I didn't know. They were identified only by

a long string of letters and numbers.

Good. No major competitors, as yet.

When my time was up I gave the tapes back to a cruising librarian cart so no one would notice who returned them and went back to the physics department.

There was a line outside my door again, but this time not all students.

### III

**"K**AHN Institute," a tall, beak-nosed man said abruptly when I let him in. "Want to talk about your work."

He sat down without being invited and pulled a lot of forms out of a thick briefcase.

"Your article was processed and projected by our computer, the best on this continent. It tells us the process of disintegration you mention or imply in your article could have important military applications."

"I hadn't realized that. And the article didn't imply anything about military uses."

"The machine caught it. You can see it for yourself with a little careful reading."

"Don't believe everything your machine tells you."

"That's an antisemantic remark. Computers can work out the implications of the written word better than any single hu-

man." His fingers were plucking at the cuffs of the severe black suit he wore. "It may become possible to, say, attach leads for microwave pulsers to large objects and destroy them completely with your techniques."

I nodded. His beak nose weaved back and forth with hypnotic effect.

I was still nodding an hour later when I got rid of him. Yes, the Institute would get regular reports and yes, of course I'd let their technicians into the lab to set up their rigs and certainly I realized the national defense was at stake and I wouldn't want to impede . . .

The next man was short and fat and flicked cigarette ashes around him like a nervous acolyte scattering incense.

"Dr. Black, sir, I'm a tech-helper over in biomed and I heard about your Breakthrough over here. The contract that hired me isn't very big and a few of us were thinking the other day about the fact that it probably won't be renewed."

His voice strangled off and the little man looked uncomfortable.

"You'd like to work on my project?"

"I could work nights," he blurted out. "Keep my old job, learn your techniques on my own time, without costing your contract a thing."

"No," I started to say, "I don't th "

"But I'll go on NoSleep! I'll spend all my time off the job on your project."

It took me fifteen minutes to get rid of that one. If I took on one the others would be after me, all the second-rate people caught in dead projects in the backwaters of research.

The rest of the line got the axe; I'd had enough for one day.

Winters had been working hard; I found him in the lab, rearranging equipment.

"I saw the article." He grinned. "Fast work."

He turned away and started explaining a new experimental configuration he'd thought out and I breathed an inaudible sigh of relief. He didn't question my omission of his name from the article; sometimes it takes graduates a while to get used to that. But a faculty member needs every publication point he can get, right down to the fractions allotted for every time your name appears in a footnote.

But then I thought, why? Why did I run it with only my name? Winters did as much as I, even if he was a graduate student. With the rest of the department trying to steal everything I had, what was I doing pulling the same scheme on Winters?

The thought bothered me. I shelved it and tried to pay attention to what Winters was telling me.

His new rig was an improvement on the one I'd designed, but I would've made the same changes if I'd had the time. Damned politics was getting between me and my work again. It always did just after you got results.

I spent a few pleasant hours running tests and trying to narrow down the areas in which the resonance occurred, thumbing dials and squinting into crowded equipment chassis, happy to get away from the world. Winters was a good researcher and getting better. He worked with the care and attention to detail I remembered from my days as a grad student, unlike the frantic scramble of the scientific monks most students were becoming.

**A**N URGENT signal from my AutoSec searched me out over the lab intercom and I broke off work. I could depend on Winters to carry on with reasonable ability, so the interruption wasn't so bad.

Randy caught me on the upramp.

"Say, you know anything about Kowalski at Midwestern?" he inquired.

I shook my head, wondering what this was about. A new and an elaborate play to get me into the clutches of Ruggles?

"Got a recommendation from him on a student who's applied to us. Kowalski gives him a pretty

good writeup, but after that cross we pulled on him last year I don't know."

"Cross?"

"We had a bad student and Kowalski was looking for somebody to fill an open slot in his team. The department worked it so everyone in Kowalski's field wrote good letters backing up the student's application and the people at Midwestern went for it. They're a little slow back there. Our boy got the slot and by the time Kowalski caught on he'd wasted months trying to train a useless deadhead."

"Oh," I said. It was a new one on me.

"So I guess we'll have to turn down anybody applying from Midwestern for a while until this blows over. Tough, but it's a necessary move. Life is full of these unpleasant decisions, boy."

Departmental politics always seemed to move people to philosophy. I ignored the hint and made for my office.

The first call was from the Kahn Institute. "Dr. Black?" asked a pretty secretary. "We wanted to know your preference in ghostscripters for your project proposal."

"What? I'll write my own."

The pretty face frowned. "I'm afraid that's quite impossible, sir. With a major undertaking like this we want a first rank job done on any budget proposals, outlines

of future expectations and so forth. We *couldn't* leave it up to an amateur."

She smiled uncertainly at me. After a moment I nodded. "Okay. Just let me see it before it goes out." I thumbed off and didn't have time to think before another image formed.

"Dr. Black," Ruggles beamed out at me, being as formal as possible. "I must inform you of a decision made by the department chairman and myself regarding your recent discoveries."

"By you and the chairman? What about the rest of the department?"

He gave me a manic grin. "We want to keep this a private matter. We're sure the senior members would support us, so there's no reason to bring it into a full session of the department."

He was probably right, but they were still railroading me.

"Frankly, we are all somewhat surprised at your attitude. Your knowledge of professional standards of behavior certainly should tell you that we --"

"The hell with that. What do you want?"

Ruggles paled visibly. Everybody seemed to think I should treat the full professors as elder gods, but I was getting fed up. Ruggles looked inquiringly off camera, then back at me.

"If you won't give us the background on your work -- I'm afraid



it will be necessary for the department to *take* it from you. I've put up with this long enough."

"You've put up "

"Yes, and don't think others don't agree with me."

"Ah, you have accomplices, then?"

"You are behaving like an ingrate. This department has given you every opportunity "

"Stuff it, Ruggles. You're a stupid son of a bitch or you wouldn't be in this situation."

"You cheat. I'm going "

**T**HE screen went blank. Evidently whoever was off camera probably the chairman didn't want Ruggles to waste time with one of his incoherent tirades.

Was everybody crazy? All I wanted to do was take credit for my own work. I even had a guilty feeling about dropping Winters' name from the article, though that was standard practice.

The phone rang again. I ignored it.

A note on my desk reminded me of some paperwork connected with the Kahn Institute and gave a hierarchy of numbers I could call. A letter welcomed me to something called the "Kahn family." I stuffed it into my pocket and locked up.

I was surprised at the dusky symphony of closing doors and fading voices in the halls; I hadn't

realized it was so late. Shadows in dark overcoats were slipping down the corridors and out, away, home. I strolled over to the Student Union.

I ordered the Italian Special and the machine spat it out at me. "Warmed to stomach-pleasing delight," the plastic pull-off seal reassured me.

It was a good choice. Nobody can eat spaghetti and have time to be lonely—it requires too much attention.

The bastards were going to get me; I could feel it with a dead, cold certainty. They could crush me without thinking about it, like a dreaming elephant rolling over in its sleep. And the hell of it was that I had grown up in the poker game of the System, played by its rules, studied my cards diligently, pocketed my winnings when they came and waited for the deal to come to me. Now it looked as though I wasn't going to get the deal or have a chance to change the rules. I was being cut out. The only thing I had on my side was that nobody could fight the System better than a man who saw it clearly. Ruggles didn't; he thought the rules of his bureaucracy were the laws of the universe. Still, I would need every point I could muster in my favor.

Maybe I should have stayed in the lab and worked with Winters to get more background data on the effect. The work would have to

be done sometime. But by the time it was finished the politics could finish me off.

The only place where I felt comfortable now was back in the lab.

Back

Something clicked.

I stood up and left.

I took the note from the Kahn Institute out of my pocket as I pushed through the steel-gray cafeteria doors. Visiphone booths gleamed outside. I ducked into one.

Even inside the booth I caught that faint odor of disinfectant and stale food that institutions always have. I grimaced, anticipating what was to come, and picked out the number of someone high up in the Institute. The code digits rattled and beeped happily in my ear.

**I** AMBLED slowly back to the lab, barely able to contain my anticipation. A crisp, cool evening welcomed me. A wind sang in my ears and cleared my mind.

Winters was working late in the lab. He started to describe what he was doing but I told him to save it.

I looked over the experiment for the last time, savoring a touch of nostalgia for the years I'd worked on it. No matter what it came to, the work had been good.

Then the mood was broken and I started checking all the likely places: automatic eyes in the light fixtures, bugs taped under drawers, the rest. They hadn't

missed a thing. Every one of the stock devices were there and probably a lot more besides. When the physics department moves in with its special equipment, it can avoid detection if it wants to bother. Evidently Ruggles didn't think it necessary.

He must have figured from the first that I would cross him. This gear couldn't have been planted without planning.

The door buzzed.

"Dr. Black?" came over the audio.

I opened the door and there they were.

A Kahn Institute security squad was formed up outside. Their captain stepped forward smartly and requested permission to search the lab. I gave it, stepped aside and watched his men at work. The beak-nosed guy was with them, but he didn't say much. They found more in two minutes than I had in ten. Winters stared as they pulled sensors out of unlikely places and piled them in the center of the floor.

"How did they—"

"You were concentrating on your work. Somebody probably slipped them in when you went out to lunch. You can't be expected to keep up with this stuff all the time."

"We've traced it, sir," one of the Institute guards called out.

He was standing over a portable detector that operated on a

resonant effect: send out signals at the right frequency and the automatic equipment that ran the focusing for the electric eyes would interpret it as ordinary data. When the stuff at the other end decided the eye needed refocusing it would send instructions and our boys would get a fix from that.

The captain checked beaknose, rushed over to me, rattled off his official report and was gone. He took most of the squad with him up the ramp and left the rest to guard the lab.

I followed at a leisurely pace, Winters behind me. After all, I knew where they were going.

The captain had Ruggles in custody and was herding him out with two graduate students when we got there. The squad was confiscating the equipment that had been hastily set up in Ruggles' office and everything was a colossal mess.

"What does this mean, Black?" Ruggles shouted. The guards were treating him a little roughly and he was out of breath.

"The Kahn people have got me on contract. Your snooping is illegal unless cleared with them."

"They'll okay it. It's the normal function of a department. If you'd just told us—"

I looked at him blankly. "But you didn't tell me you were going to bug my lab. I agree the department can do it—but unless we're warned we'll have to treat your be-

havior as a security violation."

"Exactly," said beaknose. "I am afraid I will have to declare you under arrest, Professor Ruggles, and your students, until this matter—"

"Stop." We all stared down the hall, where blue-uniformed Multiversity police were jumping off the ramp.

"Ah," Ruggles said. "I thought you'd never get here." He turned to beaknose and smiled. "I called the police as soon as I heard some of the conversation my sensors picked up."

A police sergeant trotted up, puffing. Everyone started to talk at once, with much gesturing of hands. The scene looked like a Parisian traffic accident. I dropped out of the conversation and just watched.

"Wait a minute!" the police sergeant shouted. He turned to Ruggles, who was trying to make the guards let go. "If you've been arrested for breach of security by the Institute, there's nothing I can do about it."

"That's right," I said, looking helpful. "Standing Multiversity orders don't permit interference with members of other security forces. If they arrest you, the Multiversity will have to go through regular channels to get you back."

**R**UGGLES opened his mouth to say something stupid and I

looked at the police sergeant. "But you, sir, are not completely without power."

Beaknose was trying to get everyone's attention, but we ignored him.

"How do you mean?" the sergeant said.

"You're on Multiversity property. A matter pertaining to security of staff members has come up and there are persons here who can supply some needed details. Under standard regs you can place them under protective custody until the matter is cleared up."

The sergeant looked serious. "Ah, I see."

Beaknose was plucking at my shoulder. The sergeant gestured to his men and they moved in and grabbed beaknose by the arms.

"You can't arrest a representative of the Institute," he said. He looked at the captain of the squad he had brought with him. "Get these men away from me."

The captain shrugged. "I can't. My orders don't permit."

"I don't give a damn about your orders. Call off these lugs."

"Now," I said soothingly, "we can't go around violating rules just because you want to. We all have to pull together."

"But an incident like this can place the whole project in jeopardy. If I have to explain this to the Institute before they've even seen the proposal—"

"Black!" Ruggles was shouting.

"If you don't get me out of this the whole department will suffer. A security inquiry could hurt us when our contract comes up for renewal. This isn't time to let petty differences—"

Both sides glared at each other and started taking away their respective prisoners, both of them struggling. I noticed that I was the only one laughing.

"You're going to get it for this, Ruggles!" beaknose was yelling.

Ruggles shouted something incoherent. I could pick out "Black" and "damned Institute" before they vanished down the ramp.

It would take them at least a day to straighten it all out. During that time I could collect my data and pack up a few things.

I didn't need to take much. From now on I was traveling light.

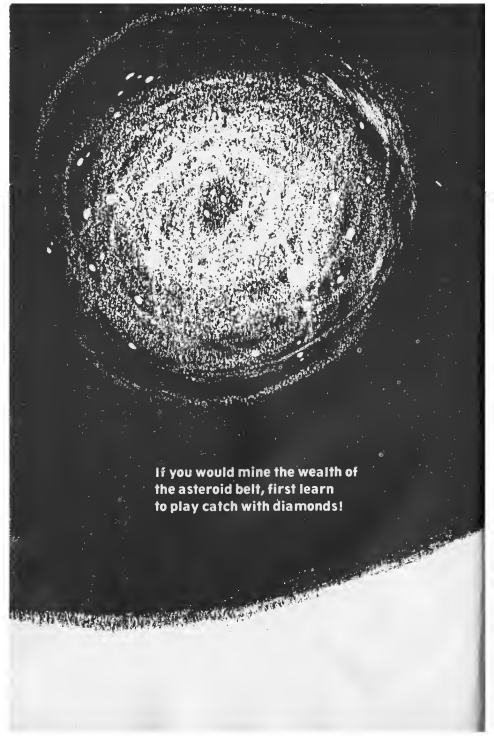
In a day I could probably pressure a tenured position out of a small college somewhere. Maybe I would ask Winters which one he had attended. They seemed to produce pretty good people.

But whatever happened, I was going to be clear of all this.

Winters was standing next to me, excited by a lot of events he didn't understand. He had never seen anyone use jujitsu on a bureaucracy before.

"This is terrible," he said. "Dr. Black, you've got to do something—"

"I am," I said. "In fact, I've just started." ★



**If you would mine the wealth of  
the asteroid belt, first learn  
to play catch with diamonds!**

# MOTHER IN THE SKY WITH DIAMONDS

JAMES TIPTREE, Jr.



I  
"SIGNAL coming in now,  
'Spector." The Coronis oper-  
ator showed the pink of her tongue  
to the ugly man waiting in the  
Belt patrolboat, half a mega-  
mile downstream. *All that feky  
old hair, too*, she thought. *Yick.*  
She pulled in her tongue and said  
sweetly, "It's from—oh—Fran-  
chise Twelve."

The man in the patrolboat  
looked uglier. His name was  
Space Safety Inspector Gollem  
and his stomach hurt.

The news that a company inspec-

tor was in pain would have suited every mollsquatter in the Belts. In fact, it wouldn't displease anyone from Demos to the Rings. The only surprise would be the notion that Inspector Gollem had a stomach instead of a company contract tape. Gollem? All the friends Gollem had could colonize a meson and he knew it.

His stomach was used to that, though. His stomach was even getting used to working for Coronis Mutual, and he still hoped it would grow immune to his boss, Quine.

What was murdering him by inches was the thing he had hidden out beyond Franchise Fourteen on the edge of Coronis sector.

He scowled at the screen where Quine's girl was logging in the grief for his next patrol. Having a live girl-girl for commo was supposed to be good for morale. It wasn't doing one thing for Gollem. He knew what he looked like and his stomach knew what the flash from Twelve could be.

When she threw it on the screen he saw it was a boggy complaint, all right. Ghost signals on their lines.

*Oh, no. Not again.*

Not when he had them all fixed.

Franchise Twelve was West Hem Chemicals, an itchy outfit with a jillabuck of cyborgs. They would send out a tracker if he didn't get over there soon. But how? He had just come that way,

he was due upstream at Franchise One.

"Reverse patrol," he grunted. "Starting Franchise Fourteen. Purpose uh unscheduled recheck of aggregation shots in Eleven plus expedited service to West Hem. Allocate two units additional power."

She logged it in; it was all right with her if Gollem started with spacerot.

He cut channel and coded in the new course, trying not to think about the extra power he would have to justify to Quine. If anyone ever got into his console and found the bugger bypass on his log he would be loading ore with electrodes in his ears.

He keyed his stomach a shot of Vageez and caught an error in his code which he corrected with no joy. Most Belters took naturally to the new cheap gee-cumulator drive. Gollem loathed it. Sliding around arsy-versy instead of *driving* the can where you wanted to go. The old way, the real way.

*I'm the last machine-freak*, he thought. *A godlost dinosaur in space . . .*

But a dinosaur would have had more sense than to get messed up with a dead dream.

*Ragnarok.*

His gee-sum index was wobbling up the scale, squeezing him retrograde in a field stress-node he hoped. He slapped away a pod of the new biomonitor they had put

in his boat and took a scan outside before his screens mushed. Always something to see in the Belts. This time it was a storm of little crescents trailing him, winking as the gravel tumbled.

*In the sky with diamonds . . .*

From *Ragnarok's* big ports you could see into naked space. That was the way they liked it once. His iron butterfly. He rubbed his beard, figuring *Ragnarok* in five hours, after he checked the squat-termost in Fourteen.

The weathersignal showed new data since he'd coded in the current field vortices and fronts. He tuned up, wondering what it must be like to live under weather made of gales of gas and liquid water. He had been raised on Luna.

**T**HE flash turned out to be a couple of rogue males coming in from Big J's orbit. Jup stirred up a rock now and then. This pair read like escaped Trojans, estimated to node downstream in Sector Themis. Nothing in that volume except some new medbase. His opposite number there was a gigglehead named Hara who was probably too busy peddling mutant phage to notice them go by. A pity, Trojans were gas-rich.

Feeding time. He opened a pack of Ovipuff and tuned up his music. *His* music. Human power music from the frontier time. Not for Gollem, the new subliminal bio-moans. He dug it hard, the right-

cous electronic decibels. Chomping the paste with big useless teeth, the cabin pounding.

*I can't get no -satisFACTION!*

The biomonitor was shrinking in its pods. Good. Nobody asked you into Gollem's ship, you sucking symbiote.

The beat helped. He started through his exercises. Not to let himself go null-gee like Hara. Like them all now. Spacegrace. His unfashionable body bucked, strained. A gorilla, no wonder his own mother had taken one look and split. *Two thousand light-years from home.* What home for Gollem? Ask Quine, ask the company. The companies owned space now.

It was time to brake into Fourteen.

Fourteen was its usual disorderly self, a giant spawn of molly-bubbles hiding an aggregate of rock that had been warped into synch long before his time. The first colonists had done it with reaction engines. Tough. A kid with a gee-cumulator could true an orbit.

Fourteen had more bubbles every time he passed—and more kids. The tissue tanks that paid the franchise were still clear but elsewhere the bubbles were layers deep, the last ones tethered loose. Running out of rock for their metabolite to work on. Gollem hassled them about that every time he passed.



"Where are your rock nudgers?" he asked now when the squatter-chief came on his screen.

"Soon, soon. 'Spector Gollem.' The squatterchief was a slender skinhead with a biotuner glued to one ear.

"The company will cancel, Juki. Coronis Mutual won't carry you on policyholder status if you don't maintain insurable life support."

Juki smiled, manipulated the green blob. They were abandoning the rocks all right, drifting off into symbiotic space life. Behind Juki he saw a couple of the older chiefs.

"You can't afford to cut the services the company provides," he told them angrily. Nobody knew better than Gollem how minimal those services were, but without them what? "Get some rock."

He couldn't use any more time here.

As he pulled away he noticed one of the loose bubbles was a sick purple. Not his concern, even if he had the time.

Cursing, he eased alongside and cautiously slid his lock probes into the monomolecular bubble-skin. When the lock opened a stink came in. He grabbed his breather and kicked into the foul bubble. Six or seven bodies were floating together in the middle like a tangle of yellow wires.

He jerked one out, squirted oxy at its face. It was a gut-bag kid, a born null-gee. When his eyes

fanned open Gollem pushed him at the rotting metabolite core.

"You were feeding it phage." He slapped the boy. "Thought it would replicate, didn't you? You poisoned it."

The boy's eyes crossed, then straightened. Probably didn't get a word, the dialect of Fourteen was drifting fast. Maybe some of them truly were starting to communicate symbiotically. Vegetable ESP.

He pushed the boy back into the raft and knocked the dead metabolite through the waster. The starved mollybubble wall was pitted with necrosis, barely holding. He flushed his CO<sub>2</sub> tank over it and crawled back to his boat for a spare metabolite core. When he got back the quasi-living cytoplasm of the bubbleskin was already starting to clear. It would regenerate itself if they didn't poison it again with a CO<sub>2</sub>-binding mutant. That was the way men built their spacehomes now, soft heterocatalytic films that ran on starlight, breathed human wastes.

Gollem rummaged through the stirring bodies until he found a bag of phage between a woman and her baby. She whimpered when he jerked it loose. He carried it back to his boat and pulled carefully away, releasing a flow of nutrient gel to seal his probe-hole. The mollybubble would heal itself.

At last he was clear for *Ragnarok*.

**H** E PUNCHED course for Twelve and then deftly patched in the log bypass and set in his true trajectory. The log would feed from his cache of duplicates, another item nobody had better find. Then he logged in the expendables he'd just used, padding it a piece as always. Embezzlement. His stomach groaned.

He tuned up a rock storm to soothe it. There was an old poem about a man with a dead bird tied around his neck. Truly he had his dead bird. All the good things were dead, the free wild human things. He felt like a specter, believe it. A dead one hanging in from the days when men rode machines to the stars and the algae stayed in pans. Before they cooked up all the metabolizing Martian macromolecules that "tamed" space. And those tame men, women and kids breathing through 'em, feeding off 'em, navigating and computing and making music with 'em mating with them, maybe!

Steppenwolf growled, worried the biomonitor. His metal-finder squealed.

*Ragnarok!*

Time shivered and the past blazed on his screens. He let himself have one quick look.

The great gold-skinned hull floated in the starlight, edged with diamonds against the tiny sun. The last Argo, the loneliest Conestoga of them all. *Rag-*

*narok.* Huge, proud, ungainly star machine, blazoned with the symbols of the crude technology that had carried man to space. *Ragnarok* who opened the way to Saturn and beyond. A human fist to the gods. Drifting now, a dead hulk, lost in the sea she'd conquered. Lost and forgotten to all but Golem the specter.

No time now to suit up and prow over and around her, to pry and tinker with her archaic fittings. The pile inside her was long and cold. He dared not even try to start it, a thing like that would set off every field-sounder in the zone. Quine's stolen power in her batteries was all that warmed her now.

Inside her also was his dead bird.

He coasted into the main lock, which he had adapted to his probe. Just as he hit he thought he glimpsed a new bubble firming up in the storage cluster he had hung on *Ragnarok's* freightlock. What had Topanga been into?

The locks meshed with a soul-satisfying clang of metal and he cycled through, eye to eye with the two old monster suits that hung in *Ragnarok's* lock. Unbelievable, so cumbersome. How ever had they done it? He kicked up through dimness to the bridge.

For one moment his girl was there.

The wide ports were a wheeling maze of starlight and fire-studded shadows. She sat in the command

couch, gazing out. He could see her pure, fierce profile, the hint of girl-body in the shadows. Star-hungry eyes.

Then the eyes slid around and the lights came up. His star girl vanished into the thing that had killed her.

Time.

Topanga was an old, sick, silly woman in a derelict driveship.

She smiled at him from the wreckage of her face.

"Golly? I was remembering—" What an instrument it was still, that husky voice in the star haze. The tales it had spun for him over the years. She had not always been like this. When he had first found her, adrift and ill she had still been Topanga then. The last one left.

"You were using the caller. Topanga, I warned you they were too close. Now they've picked you up."

"I wasn't sending, Golly." Eerie blue, the wide old eyes reminded him of a place he had never seen.

**H**E BEGAN to check the tell-tales he had hung on her console leads. Hard to believe those antiques were still operational. Completely inorganic, a ton of solid-state circuitry. Topanga claimed she couldn't activate it, but when she had had her first crazy fit he had found out otherwise. He had had her parked in

Four then, in a clutch of space-junk. She had started blasting the bands with docking signals to men twenty years dead. Company salvage had nearly blown her out of space before he had gotten there—he had had to fake a collision to satisfy Quine.

A telltale was hot.

"Topanga. Listen to me. West Hem Chemicals are sending a hunter out to find you. You were jamming their miners. Don't you know what they'll do to you? The best—the very best you'll get is a geriatric ward. Needles. Tubes. Doctors ordering you around, treating you like a thing. They'll grab *Ragnarok* for a space trophy. Unless they blast you first."

Her face crumpled crazily.

"We can take care of ourselves. I'll turn the lasers on 'em."

"You'd never see them." He glared at the defiant ghost. He could do anything he wanted here, what was stopping him. "Topanga, I'm going to kill that caller. It's for your own good."

She stuck up her ruined chin, the wattles waving.

"I'm not afraid of them."

"You have to be afraid of a jerry ward. You want to end as a mess of tubing, under the gees? I'm going to dismantle it."

"No, golly, no!" Her stick arms drummed in panic, trailing skin. "I won't touch it, I'll remember. Please don't leave me helpless."

Her voice broke and so did his stomach. He couldn't look at it, this creature that had eaten his girl. Topanga inside there somewhere, begging for freedom, for danger. Safe, helpless, gagged? No.

"If I nudge you out of West Hem's range you'll be in three others. Topanga, baby, I can't save you one more time."

She had gone limp now, shrouded in the Martian oxy-blanket he had brought her. He caught a blue gleam under the shadows and his stomach squirted bile.

Let go, witch. Die before you kill me, too.

He began to code in the gee-cum unit he had set up here. It was totally inadequate for *Ragnarok's* mass but he could overload it for a nudge. He would stabilize her on his next pass-by, if only he could find her without wasting too much power.

From behind him came a husky whisper. "Strange to be old—" Ghost of a rich girl's laugh. "Did I ever tell you about the time the field shifted, on Tethys?"

"You told me."

*Ragnarok* was stirring.

"Stars," she said dreamily. "Hart Crane was the first space poet. Listen. *Stars scribble on our eyes the frosty sagas, the gleaming cantos of unvanquished space. O silver sinewy:*"

Gollem heard the hull clang.

Someone was trying to sneak out of *Ragnarok*.

HE LAUNCHED himself down-shaft to the freight lock, found it cycling and jackknifed back to get out through his boat at the main lock. He was too late. As he sprang into his cabin the screens showed a strange pod taking off from behind that new bubble.

*Dummy, dummy...*

He suited up and scrambled out across *Ragnarok's* hull? The new bubble was still soft, mostly nutrigel. Pushing his face into it he cracked his breather.

He came back to Topanga in a blue rage.

"You are letting a phage-runner park on *Ragnarok*."

"Oh, was that Leo?" She laughed vaguely. "He's a courier from the next zone—Themis, isn't it? He calls by sometimes. He's been beautiful to me, Golly."

"He is a stinking pagerunner and you know it. You were covering for him." Gollem was sick. The old Topanga would have put "Leo" out the trash hole. "Not phage. Not phage on top of everything, Topanga."

Her ancient eyelids fell. "Let it be, Golly. I'm alone so long," she whispered. "You leave me for so long."

Her withered paw groped out, seeking him. Brown-spotted, criss-crossed with reedy pulses. Knobs, strings. Where were the hands of

the girl who had held the camp on Tethys! He looked at the line of holographs over the port and saw her. The camera had caught her grinning up at black immensity, the wild light of Saturn's rings reflected in her red-gold hair.

"Topanga, old mother," he said painfully.

"Don't call me mother, you plastic spacepig," she blazed. Her carcass jerked out of the pilot couch and he had to web her back, hating to touch her. A quarter gee would break these sticks. "I should be dead," she mumbled. "It won't be long—you'll be rid of me."

*Ragnarok* was set now, he could go.

"Maintain, spacer, maintain," he told her heartily. His stomach knew what lay ahead. None of it was any good.

As he left he heard her saying brightly, "Gimbal, check," to her dead computer.

## II

**H**E TOOK off highgain for Franchise Twelve and West Hem. Just as he had the log tied back into real time his caller bleeped. The screen stayed blank.

"Identify."

"Been waitin' on you, Gollem." A slurred tenor. Gollem's beard twitched.

"One freakin' fine ship." The voice chuckled. "Mainmouth by

Co'onis truly flash that ship."

"Stay off *Ragnarok* if you want to keep your air," Gollem told the phagerunner.

The voice chuckled again. "My pa'tners truly grieve on that, 'Spector." There was a click and he heard his own voice saying, "Topanga, baby, I can't save you one more time."

"Deal, 'Spector, deal. Why we flash on war?"

"Blow your clobbering tapes," Gollem said tiredly. "You can't run me like you run Hara."

"'Panga," the invisible Leo said reflectively. "Freakin' fine old fox. She tell I fix her wire fire?"

Gollem cut channel.

The phager must have set a short smoking to win her trust. Vulnerable.

*An old sick eagle dead in space and the rats have found her . . .*

They wouldn't quit, either. *Ragnarok* had air, water, power. Transmitters. Maybe they were using her caller, maybe she was telling the truth. They could take over. Shove her out through the lock.

Gollem's hand hovered over his console.

If he turned back now his log would blow it all. And for what? No, he decided. *They'll wait, they'll sniff around. They want to take me, too. They'll wait to see how much squeeze they have. Pray they don't find out. If only they don't start trashing . . .*

He had to get some more power somewhere and jump *Ragnarok* out of there. How, how? Like trying to hide Big Jup.

He noticed that he had punched the biomonitor into a sick yellow blob and hurled it across the cabin. And how much longer could he cool Coronis?

Right on cue, his company hotline blatted.

"Why aren't you at Franchise Two, Golem?"

It was mainmouth Quine himself. Golem took a deep breath and repeated his course reversal plan, watching Quine's little mouth purse up.

"After this clear with me. Now hear this, Golem," Quine leaned back in his bioflex, pink and plump. Coronis was no hardship. "I don't know what you think you're into with Franchise Three but I want it stopped. The miners are yelling and our company won't tolerate it."

Golem shook his shaggy head like a dazed bull. Franchise Three was a heavy metal mining outfit.

"They're overloading their tractor beams for hot extraction," he told Quine. "It's in my report. If they keep it up they'll have one bloody hashup. And they won't be covered because their contract annex specifies the load limits."

Quine's jowls twitched ominously. "Golem. Again I warn you. It is not your role to interpret the contract to the policyholder. If the

miners choose to get their ore out faster by abrogating their contract that's their decision. Your job is to report the violation, not to annoy them with technicalities. Right now they are very angry with *you*. And I trust you don't imagine that our company "reverent pause "appreciates your initiative?"

Golem made an inarticulate noise in his throat. He should be used to this. Coronis wanted its piece quickly *and* it wanted to avoid paying compensation when the thing blew. The miners got paid by the shuttle load and most of them couldn't tell a contract annex from a flush valve. By the time they found out they'd be dead.

"Another item." Quine was watching him. "You may be getting some noise from Themis sector. They seemed to be all sweated up about a bit of rock."

"You mean those Trojans?" Golem asked slowly. "What's there?"

"Have you been talking to Themis?"

"No."

"Very well. You will not, repeat not, deviate from your patrol. You are on a very thin line with us, Golem. If your tapes show anything *whatever* in connection with Themis you're out of the company and there will be a lien against you for your overdrawn pension. *And* there will be no transport rights. Do I make myself clear?"

**G**OLLEM cut channel. When he could control his hands he punched Weather for the updated rogue orbits. Both rocks were now computed to node in sector Themis, but well clear of Themis main. He frowned. Who was hurting? His ephemeris showed only the new medbase in the general volume, listed as Nonaffiliated, no details. It seemed to be clear, too. If that polluted Hara . . .

Gollem grunted. He understood now. Quine was hoping for some hassle in Themis which might persuade Ceres Control to reassign part of that sector to him. And the medbase wasn't company, it was expendable for publicity purposes. Truly fine, he thought. Much gees for Quine if it works.

He was coming into West Hem Chemicals. Before he could signal, his audio cut loose with curses from the cyborg chief. Gollem swerved to minimize his intrusion on their body lines and the chief cooled down enough to let him report that he had killed their bogy.

"It was an old field-sounder," Had they identified *Ragnarok*?

"Slope out. Go." The old cyborg op couldn't care less. He had electrode jacks all over his skull and his knuckles sprouting wires. Much as Gollem loved metal, this was too much. He backed out as gingerly as he could. The men—or maybe the creatures—in there were wired into the controls

of robot refining plants on all the nearby rocks, and he was hashing across their neural circuit. Wouldn't be surprising if they fired on him one day.

His next stop was the new aggregation franchise in Eleven. It was a slow-orbit complex on the rim of the Kirkwood Gap, a touchy location to work. If they started losing rocks they could spread chaos in the zone.

Aggregation meant power units, lots of them. Gollem began figuring *Ragnarok's* parameters. His stomach also began to gripe him; the outfit that had leased Eleven had big plans for a self-sustaining colony on a slim budget. They needed those units to bring in gas-rich rocks.

When he got inside Gollem saw they had other problems too.

"We've computed for two-sigma contingency," the Eleven chief repeated tiredly. They were standing beside a display tank showing the projected paths of the rocks they intended to blast.

"Not enough," Gollem told him. "Your convergence-point is smeared the hell all over. You lose a big one and it'll plow right into Ten."

"But Franchise Ten isn't occupied," the chief protested.

"Makes no difference. Why do you think you got this franchise cheap? The company's delighted to have you aggregating this lode, they're just waiting for you

to lose one rock so they can cancel and resell your franchise. I can't certify your operation unless you recompute."

"But that means buying computer input from Ceres Main!" he yelled. "We can't afford it."

"You should have looked at the instability factors before you signed," Golem said woodenly. He was wishing the chief didn't have all his hair; it would be easier to do this to a skinhead.

"At least let me bring in the rocks we have armed," the chief was pleading.

"How many one-gee units have you got out there?" Golem pointed.

"Twenty-one."

"I'll take six of them and certify you. That's cheaper than recomputing."

The chief's jaw sagged, tightened to a snarl.

"You polluted bastard!"

Suddenly there was a yelp behind them and the commo op tore off his earphones. The chief reached over and flicked on the voder, filling the bubble with an all-band blare. For a minute Golem thought it was a flare front, and then he caught the human scream.

"MAYDAY! MA-AY-DA-AAY! GO-OLLEE "

He slammed down the voder, the sweat starting out all over him.

"What in space " the chief began.

"Old beacon in the Gap." Golem was pushing past them. "I have to go kill it."

**H**E PILED into his boat and threw in the booster. No time for power units now; that yell meant Topanga was in real trouble. She wasn't calling dead men.

If he tied in the spare booster he could override the field-forms for a straighter course. Strictly *verboten*. He did so and then opened his commo channels. Topanga wasn't there.

Fire? Collision? More like, Leo and friends had made their move.

He hurtled downstream in a warp of wasted power, his hands mechanically tuning the board in hopes of pulling in some phagers' signals, something. He picked up only far-off mining chatter and a couple of depot ops asking each other what the Mayday was. Someone in Sector Themis was monotonously calling Inspector Hara. Hara wasn't answering, as usual, only the automatic standby from Themis main. Golem cursed them all impartially, trying to make his brain yield a plan.

Why would the phagers move in on *Ragnarok* so fast? Not their style, confrontation. If he blew they'd lose the ship, they'd have to cope with a new inspector. Why risk it when they had him by the handle already?

Maybe they figured it was no



risk. Golle's fist clenched and unclenched on the tuner in a heavy rhythm. *Paint it black*, he thought. They have to keep her alive till I get there. They want me.

What, then, to do? Would they believe a threat to scream it all the way up to Ceres Control? Don't bother to answer. They knew as well as he did that a company bust would end with Topanga in a gerry ward, *Ragnarok* in Quine's trophy park and Golle in a skull-cage. But how to break Topanga loose from them? If he tried to jive along with them the first thing they'd do would be to shoot her up on phage. Addiction dose. Him too—why had he left her there alone?

He was going around this misery orbit for the nth time when he noticed the Themis voice had boosted gain and was now trying to reach Coronis, his home base. Quine's home base. No answer.

Against his stomach's advice he tuned it up.

"Medbase Themis to Coronis main, emergency. Please answer, Coronis. Medbase Themis calling Coronis, emergency, please—"

The woman was clearly no commo op.

Finally Quine's girl chirped: "Medbase Themis, you are disturbing our traffic. Please damp your signal."

"Coronis, this is an emergency. We need help—we're going to get hit!"

"Medbase Themis, contact your sector safety patrol officer, we have no out-of-sector authorization. You are disturbing our traffic."

"Our base won't answer! We have to have help, we have casualties—"

A male voice cut in. "Coronis, put me through to your chief at once. This is a medical priority."

"Medbase Themis, Sector Chief Quine is outstation at present. We are in freight shuttle assembly for the trans-Mars window, please stand by until after launch."

"But —"

"Coronis out."

Golle grimaced, trying to picture Quine going outstation.

He went back to pounding on his brain. The Themis woman went on calling. "We are in an impact path, we need power to move. If anyone can help us please come in, Medbase Themis —"

He cut her off. One *Ragnarok* was enough and his was just ahead now.

**T**HERE was a faint chance they weren't expecting him so soon. He powered down and drifted. As his screens cleared he saw a light move in the bubbles behind the freight lock.

His one possible break, if they hadn't yet moved that phage in-board.

He grabbed the wrecking laser controls and kicked the patrol-

boat straight at *Ragnarok's* main lock. The laser beam fanned over the bubbles, two good slices before he had to brake. The crash sent him into his boards. The docking probes meshed and he went head-first into *Ragnarok's* lock. As it started to cycle he burned the over-ride, setting off alarms all over the ship. Then he was through and caroming up the shaft. Among the hoots he could hear more clanging. Phagers were piling out through freight lock to save their bubbles. If he could get to the bridge first he could lock them out.

He twisted, kicked piping and shot into the bridge, his arm aimed at the emergency hatch-lock lever. It had been not used for decades—he nearly broke his wrist, yanking the lever against his own inertia and was rewarded by the sweet grind of lock toggles far below.

Then he turned to the command couch where Topanga should be and saw he was too late.

She was there all right, both hands to her neck and her eyes rolling. Behind her a lank hairless figure was holding a relaxed pose, in his first a wirenoose leading around Topanga's throat.

"Truly fine, Inspector." The phager grinned.

For a second Gollem wondered if Leo hadn't noticed the hand-laser Gollem pointed. Then he saw that the phagehead was holding a welder against Topanga's

side. Its safety sleeve was off.

"Deal, Gollyboy. Deal the fire down."

No way. After a minute Gollem sent his weapon drifting by Leo's arm. He didn't take the bait.

"Open up." The phager jerked his chin at the hatch lever and Topanga gave a bubbling whine.

When Gollem opened that the game was over all the way. He hung frozen, his coiled body sensing for solidity behind him, measuring the spring.

The phager jerked the wire. Topanga's arms flailed. One horrible eye rolled at Gollem. A spark in there, trying to say no.

"You're killing her. Then I tear your head off and throw you out the waster."

The phager giggled. "Why you flash on killin'?" Suddenly he twisted Topanga upside down, feet trailing out toward Gollem. She kicked feebly. Weird, her bare feet were like a girl's.

"Open up."

When Gollem didn't move the phager's arm came out in a graceful swing, his fingers flaring. The welding arc sliced, retraced, sliced again as Topanga convulsed. Topanga was quiet now.

"Way to go." The phager grinned. "Truly tough old bird. Open up."

"Turn her loose. Turn her loose. I'll open."

"Open now." The arm came out again.

Suddenly Topanga made a weak twist, scrabbling at Leo's groin. The phager's head dipped. Golem drove inside his arm, twisted it against momentum. The welder rocketed out around the cabin while he and the phager thrashed around each other, blinded by Topanga's robe. The phager had a knife now but he couldn't get braced. Golem felt legs lock his waist and took advantage of it to push Topanga away. When the scene cleared he clamped the phager to him and began savagely to collect on his investment in muscle building.

Just as he was groping for the wire to tie up the body something walloped him back of the ear and the lights went out.

He came to with Topanga yelling, "Val, Val! I've got 'em!"

She was hanging on the console in her hair using both hands to point an ancient Thunderbolt straight at him. The muzzle yawned smoke a foot from his beard.

"Topanga, it's me—Golly. Wake up, spacer, let me tie him up."

"Val?" A girl laughing, screaming. "I'm going to finish the murdering mothers, Val!"

Valentine Orloff, her husband, had been in the snows of Gany-mede for twenty years.

"Val is busy, Topanga," Golem said gently. He was hearing hull noises he didn't like. "Val sent me

to help you. Put down the jolter and help me tie up this creep, spacegirl. They're trying to steal my boat."

He hadn't had time to lock it, he remembered now.

Topanga stared at him.

"*And why do I often meet your visage here?*" she croaked. "*Your eyes like unwashed platters*—"

Then she fainted and he flung himself downshaft to the lock.

His patrolboat was swinging away. Tethered to it was the phage-runners' pod.

He was stranded on *Ragnarok*.

**R**AGE exploded him back to the bridge consoles. He managed to send one weak spit from *Ragnarok's* lasers after them as they picked up gees. Futile. Then he pulled the phager's head over his knee and clouted it and turned to setting up Topanga with an i.v. in her old cobweb veins. How in hell had those weak claws held a jolter? He wrapped a gel sheath over her burns, grinding his jaw to still the uproar in his stomach.

With one hand on the cycle button he checked frowning. He could use some information from Leo—what were they into in his patrol sector?

Then his head came together and his fist crunched the eject. *His* patrol sector?

If the companies ever got their hands on him he'd spend the rest of his life with his brains wired up,

paying for that patrolboat. If he was lucky. No way, no where to go. The companies owned space. Truly he was two thousand light-years from home now —on a dead driveship.

Dead?

Gollem threw back his lank hair and grinned. *Ragnarok* had a rich ecosystem, he'd seen to that. Nobody but the phagers knew she was here and he could probably hold them out for a while. Long enough, maybe, to see if he could coax some power out of that monsterhouse without waking up the sector. Suddenly he laughed out loud. A thing like a rusty shutter was sliding in his mind, letting in glory.

"Man, man!" he muttered and stuck his head into the regeneration chamber to check the long trays of culture stretching away under the lights.

It took him a minute to understand what was wrong.

No wonder the phagers came back so fast, no wonder he was laughing like a dummy. They'd seeded the whole works with phage culture. A factory. The first trays were near sporing, the air was ropy. He hauled them out, inhaled a clean lungful and jettisoned the ripe trays.

Then he crawled back in to search. On every staging the photosynthetic algae were starting to clump, coagulating to the lichen-like symbiote that was

phage. Not one clean tray.

In a few days *Ragnarok* would have no more air.

But he and Topanga wouldn't care. They'd be through the walls in phagefreak long before.

He was well and truly shafted now.

He flushed some oxy into the ventilators and kicked back to the bridge. Get some clean metabolite. Or die.

Who would give him air? Even if he could move *Ragnarok*, the company depots and franchises would be alerted. He might just as well signal Coronis and give himself up. Maybe Quine wouldn't bother to reach him and Topanga in time. Maybe better so. Wards. Wires.

Topanga groaned. Gollem felt her temples. Hot as plasma, old ladies shouldn't play war. He rummaged out biogens, marveling at the vials, ampoules, tabs, hypodermics. Popping who knew what to keep alive. Contraband she and Val had picked up in the old free days, her hoard would stock a

Wait a minute.

Medbase Themis.

### III

**H**E TUNED up *Ragnarok's* board. The Themis woman was still calling, low and hoarse. He cranked the antennae for the narrowest beam he could get.

"Medbase Themis, do you read?"

"Who are you? Who's there?" She was startled out of her code book.

"This a spacesweep mission. I have a casualty."

"Where—" The man took it. "This is Chief Medic Krans, spacer. You can bring in your casualty but we have a rogue headed through our space with a gravel cloud. If we can't get power to move the station in about thirty hours we'll be holed out. Can you help us?"

"You can have what I've got. Check coordinates."

The woman choked up on the decimals. No use telling them he couldn't do them any good. The gee-cum unit he had in *Ragnarok* wouldn't nudge that base in time for Halley's comet. And *Ragnarok's* drive—if it worked it would be like trying to wipe your eye with blowtorch.

But their air could help him.

The drive. He bounced down the engineway, knowing the spring in his muscles was partly phage. Only partly. A thousand times he had come this way, a thousand times torn himself away from temptation. Gleefully now he began to check out the circuits he had traced, restored the long-pulled fuses. There was a sealed hypergolic reserve for ignition. A stupefying conversion process, a plumber's nightmare of heat-ex-

changers and back-cycling. Crazy, wasteful, dangerous. Enough circuitry to wire the Belt. Unbelievable it has carried man to Saturn, more unbelievable it would work today.

He clanked the rod controls. No telling what had crystallized. The converter fuel chutes jarred out thirty years' accumulated dust. The ignition reserve was probably only designed for one emergency firing. Would he be able to ignite again to brake? Learn as you go. One thing sure, when that venerable metal volcano burst to life every board from here to Coronis would be lit.

When he got back to the bridge Topanga was whispering.

*"We left the haven hanging in the night—O thou steel cognizance whose leap commits"*

"Pray it leaps," he told her and began setting course, double-checking everything because of the phagemice running in the shadows. He wrapped Topanga's webs.

He started the ignition train.

The subsonic rumble that grew through *Ragnarok* filled him with terror and delight. He threw himself into the webs, wishing he had said something, counted down maybe. Blastoff. *Go*. The rumble bloomed into an ore mill roar. Gees smashed down on him. Everything in the cabin started raining on the deck. The web gave sideways and the roar wound up in a scream that parted his brain and

then eerily dwindled into silence.

When he struggled back to the board he found the burn had cut right. *Ragnarok* was barreling toward Themis. He saw Topanga's eyes open.

"Where are we headed?" She sounded sane as soap.

"I'm taking you over to the next sector, Themis. We need metabolite, oxygen. The phagers ruined your regenerators."

"Themis?"

"There's a medbase there. They'll give us some."

Mistake.

"Oh, no—no!" She struggled up. "No, Golly! I won't go to a hospital—don't let them take me!"

"You're not going to a hospital, Topanga. You're going to stay right here in the ship while I go in for the cores. They'll never know about you. We'll be out of there in minutes."

No use. "God hate you, Gollem." She made an effort to spit. "You're trying to trap me, I know you. Never let me free. You won't bury me here, Gollem. Rot in Moondome with your ugly cub—I'm going to Val!"

"Cool, spacer, you're yawing." He got some trunks into her finally and went back to learning *Ragnarok*. The phage was getting strong now. When he looked up the holographs were watching him drive their ship. The star heroes. Val Orlov, Fitz. Hannes, Mura, all the great ones. Sometimes only a

grin behind a gold-washed headplate, a name on a monster suit beside some mad hunk of machine. Behind them, spacelost wildernesses lit by unknown moons. All alive, all so young. There was Topanga with her arm around that other spacegirl, the dark Russian one who was still orbiting Io. They grinned past him, bright and living.

*When they start talking we've had it . . .*

**H**E SET the gyros to crank *Ragnarok* into what he hoped was attitude for the retro burn. If he could trust the dials, there was enough ignition for braking and for one last burn to get out of there. But where would he go from Medbase? Into the sky with diamonds.

He heard himself humming and decided to lock the whole thing into autopilot. No matter what shape that computer was in it would be saner than he.

*Have you seen your mother, baby standing in the shadows . . .*

When he began hearing Iron Butterfly he went down and threw out half the trays. The three remaining oxy tanks struck him as hilarious. He cracked one.

The oxy sobered him enough to check the weather signal. The Medbase woman was still trying to raise Themis Main. He resisted the impulse to enlighten her about the companies and concentrated on the updated orbits of

the Trojan rogues. He saw now what had Medbase sweating. The lead rogue would miss them by megamiles but it was massive enough to have stirred up a lot of gravel. The small rogue behind was sweeping up a tail. The rock itself would go by far off but that gravel cloud would rip their bubbles to shreds.

He had to get there and out again fast.

He sniffed some more oxy and computed the rogue orbits on a worst-contingency basis. It looked okay for him. His stomach flinched; even under phage it had an idea what it was going to be like when those medics found out they were wasted.

He saw Topanga grinning. The phage was doing her more good than the tranks.

"Not to worry, stargirl. Golly won't let 'em get you."

"Air." She was trying to point to life-support, which had long since gone red.

"I know, spacer. We're getting air at Medbase."

She gave him a strange un-Topanga smile. "Whatever you say, little Golly." Whispering hoarsely. "I know you've been beautiful."

Her hand reached, burning. This he positively could not take. Pity his music was gone.

"Give us verses as we go, star girl."

But she was too weak.

"Read me--"

Her scanner was full of it.

*"In oil-rinsed circles of blind ecstasy."* Hard to dig, until the strobing letters suddenly turned to music in his throat. *"Man hears himself an engine in a cloud!"* he chanted, convoyed by ghosts.

*"... what marathons new-set among the stars!"*

*"The soul, by naphtha fledged into new reaches, already knows the closer clasp of Mars"*

It was indeed fortunate, he discovered, that he had set the autopilot and stayed suited up.

**H**IS first clear impression of Medbase was a chimpanzee's big brown eyes staring into his under a flashprobe. He jerked away, found himself peeled and tied on a table. The funny feeling was the luxury of simulated gravity. The chimpanzee turned out to be a squat little type in medwhites, who presently freed him.

"I told you he wasn't a phager." It was the woman's voice.

Craning, Gollem saw she was no girl-girl and had a remarkable absence of chin. The chimpanzee eventually introduced himself as Chief Medic Krans.

"What kind of ship is that?" the woman asked as he struggled into his suit.

"A derelict," he told them. "Phagerunners were using it. My teammate's stoned. All he needs is air."

"The power units," said Kranz. "I'll help you bring them over."

"No need for you to go in—I've got them ready to go. Just give me a couple of metabolite cores to take back to start the air clearing."

Unsuspecting, Kranz motioned the woman to show the way to their stores. Golem saw that their base was one big cheap bubble. The molly hadn't even seamed together under the film; a couple of pebbles would finish them. The ward had twenty-odd burn cases in cocoons. Themis didn't bother much with burns.

An old spacerat minus a lot of his original equipment came wambling over to open up. Golem loaded as much metabolite as he could carry and headed for the lock. At the port the woman grabbed his arm.

"You *will* help us?" Her eyes were deep green. Golem concentrated on her chin.

"Be right back." He cycled out.

*Ragnarok* was on a tether he didn't recall securing. He scrambled over, found the end fouled in the lock toggles. If there had been tumble—bye-bye.

When he got inside he heard Topanga's voice. He hustled up the shaft.

Once again he was too late.

While he had been in the stores unsuspecting Chief Medic Kranz had suited up and beat him into *Ragnarok*.

"This is a very sick woman, spacer," he informed Golem.

"The legal owner of this derelict, Doctor. I'm taking her to Coronis Base."

"I'm taking her into my ward right now. We have the facilities. Get those power units."

He could see Topanga's eyes close.

"She doesn't wish to be hospitalized."

"She's in no condition to decide that," Kranz snapped.

**T**HE metabolite was on board. Doctor Chimpanzee Kranz appeared to have elected himself a driveship ride to nowhere. Golem began drifting toward the ignition panel, beside Topanga's web.

"I guess you're right, sir. I'll help you prepare her and we'll take her in."

But Kranz' little hand had a little stungun in it.

"The power units, spacer." He waved Golem toward the shaft.

There weren't any power units.

Golem backed into the metabolite, watching for the stunner to waver. It didn't. There was only one chance left, if you could call it a chance.

"Topanga, this good doctor is going to take you into his hospital," he said loudly. "He wants you where he can take good care of you."

One of Topanga's eyelids



wrinkled, sagged down again. An old, battered woman. No chance.

"Can you handle her, doctor?"

"Get that power out *now*," He had the safety off.

Gollem nodded sourly and started downshaft as slowly as he could. Kranz came over to watch him, efficiently out of reach. What now? Gollem couldn't reach the ignition circuits from here even if he knew how to short them. Just as he turned around to look for something to fake a power cell it happened.

A whomp like an imploding mollybubble smacked into the shaft. Chief Medic Kranz went into a slow cartwheel.

"Good girl!" Gollem yelled. "You got him—" He batted the stunner out of Kranz' limp glove and kicked upward. When he raised his head he found he was looking into the snout of Topanga's jolter.

"Get out of my ship," she yelped. "You lying suitlouse. And take your four-eyed, needle-sucking friend with you!"

"Topanga, it's me—it's Golly."

"I know who you are," she said coldly. "You'll never trap me."

"Topanga!" he cried. A bolt went by his ear, rocking him.

"Out!" She was leaning down the shaft, squeezing on the jolter.

Gollem backed slowly down, collecting Kranz. The witch figure above him streamed biotape and bandages, the hair that once shone

red standing up like white fire. She must be breathing pure phage, he thought.

*Can't last long . . . All I have to do is go slow . . .*

"Out!" She screamed. Then he saw she had Kranz' oxy tube clamped under one arm. This seemed to be his day for underestimating people.

"Topanga," he began to plead and had to dodge another jolt-bolt. She couldn't go on missing forever. He decided to haul Kranz out and cut back into the ship through the emergency port.

There was a welder in the Medbase port rack. He boosted Kranz along the tether and into the lock. The Medbase woman was waiting on the other side. As the port opened he pushed Kranz at her and grabbed the welder. The chinless wonder learned fast; she flung herself on the welder and started to wrestle. There was solid woman-muscle under her whites, but he got a fist where her jaw should have been and threw himself back into the lock.

As it started to cycle he realized she had probably saved his life.

The outer lock had a viewport through which he could see *Ragnarok's* vents. The starfield behind them was dissolving.

He let out an inarticulate groan and slammed the reverse cycle to let himself back into Medbase. As soon as it cracked he bolted through, carrying the medics to

the deck. The port behind him lit up like a solar flare.

**T**HEY all stared at the silent torrent of flame pouring out of *Ragnarok*. Then she was moving, faster, faster yet. The jetstream swung and the port went black.

Luckily the port area was hard-walled, with the command nucleus behind it. Golem and the woman followed Kranz to the main port. *Rannarok* was a dwindling fire-tail among the stars.

"Topanga doesn't like hospitals," Golem told them.

"The power units," Kranz said urgently. "Call her back."

The woman was pushing Golem toward the commo board.

"No way. She just blew the last ignition charge. Where she's headed now she goes."

"What do you mean? To Coronis?"

"Never." He rubbed his shaggy head. "I don't recall exactly. Mars, maybe. The sun—"

"With the power units that would have saved these people." Kranz' face hardened into the expression he probably used on gangrene. "Thanks to you, I suggest that you remove yourself from my sight for the remainder of our joint existence."

"There never were any power units," Golem said, starting to go out. "The phagers got my boat and you saw for yourself what that drive was like. It would have

broken you apart—believe me."

The woman followed him out.

"Who was she, spacer?"

"Topanga Orloff," Golem said painfully. "Val Orloff's wife. They were the first Saturn mission. That was their ship, *Ragnarok*. She was holed up in my sector."

"You just wanted air."

Golem nodded. They were by the base display tank. The computer was running a real-time display of the oncoming Trojans. The green blip was Medbase and the red blip with the smear was the smaller Trojan and attendant gravel tail. He studied the vectors. No doubt.

Now it was dark, period. Sleep time coming up. The people here might eat breakfast, but for true they wouldn't eat lunch. By noon or thereabouts Medbase would be organic enrichment on a swarm of space ice.

So would ex-Inspector Golem.

The two medics went out on the wards and Kranz unbent enough to accept Golem's offer to man the commo board. The spacer wobbled in to watch him. The sight of *Ragnarok's* blast-out had lit his fires. •

Golem taped a routine red-call and began to hunt across the bands. The old man mumbled about ships. Nobody was answering, nobody would. Once he thought he heard an echo from Topanga, but it was nothing. Her oxy

must be long gone by now, he thought. A mad old phage-ghost on her last trip. Where had he computed her to? He seemed to recall something about Mars. At least they wouldn't end in some trophy-hunter's plastic park.

"You know what they got in them cocoons? Squatters!" The old man squinted out of his good side to see how Gollem took this. "Skinheads. Freaks 'n' crotties. Phagers, even. Medics, they don't care." He sighed, scratched his burned skin with his stump. "Grounders. They won't last out here."

"Too right," Gollem agreed. "Like maybe be gone tomorrow." That tickled the old man.

**T**OWARD midnight Kranz took over. The woman brought in some hot redeye. Gollem started to refuse and then realized his stomach wasn't hurting any more. Nothing to worry about now. He sipped the stimulant. The woman was looking at a scanner.

"She was beautiful," she murmured.

"Knock it off, Anna," Kranz snapped.

She went on scanning and suddenly caught her breath.

"Your name. It's Gollem, isn't it?"

Gollem nodded and got up to go look at the tank.

Presently the woman Anna came out after him and looked at the

tank, too. The old spacer was asleep in the corner.

"Topanga was married to a George Gollem once," Anna said quietly. "They had a son. On Luna."

Gollem took the scanner cartridge out of her hand and flipped it into the wastechute. She said nothing more. They both watched the tank for a while. Gollem noticed that her eyes were almost good enough to make up for her chin, but she didn't look at him. The tank didn't change.

Around four she went in and took over from Kranz and the men settled down to wait.

"Medbase Themis calling Medbase Themis calling anyone," the woman whispered.

Kranz went out. It seemed a lot of work to breathe.

Suddenly Kranz snapped his fingers from the next room. Gollem went to him.

"Look."

They hung over the tank. The red smear was closer to the green blip. Between them was a yellow spark.

"What is that?"

Gollem shrugged. "A rock."

"Impossible, we scan-swept that area a dozen times."

"No mass," Gollem frowned. "It's a tank ghost."

Kranz began systematically flushing the computer input checks. The woman left the board and came to hang over the tank.

Gollem watched absently, his brain picking at phage-warped memories. Something about the computer. On impulse he went to the commo board and ran the receiver through its limits. All he got was a blast of squeals and whistles, the stress-front of the incoming rocks.

"What is it?" Anna's eyes were like oscilloscopes.

"Nothing."

Kranz finished his checks. The yellow ghost stayed in, sidling toward the red smear. If that were a rock, and it had about a hundred times more mass than it could have, it just might deflect the Trojan. But it didn't. And there was the gravel cloud.

Gollem played monotonously with the board. The old spacer snored. The minutes congealed. Kranz shook himself, took Anna out to tour the wards. When they came back they stopped at the tank.

The whatever-it-was stayed in, closing on the Trojan.

Sometime in the unreal dimlight hours he heard it, wavering on a gale of space noise: "*I have contact! Val! I'm coming*

They crowded around him as he coaxed the tuners. There was nothing there. Presently a ripple of relays tripped off in the next room and they all ran to the tank. It was dead; the computer had protected itself against an induction overload.

**T**HEY never knew exactly what happened.

"It's possible," Gollem admitted to them. It was long after noon when they decided to eat.

"While we were on the way here I know I computed that Trojan all the way to Medbase. It was after that I got really bombed. Maybe I threw a bridge into the course computer, maybe it was already in. Say she took off with no course setting. Those old mechs are set to hunt. It's possible it inverted and boosted straight back out that trajectory to the rock."

"But your ship had no mass," Kranz objected.

"That thing was a space-scoop feeding a monster drive. The pile dampers were cheese. *Ragnarok* could have scooped herself solid right through the gravel cloud and blown as she hit the Trojan. You could get a pocket sun."

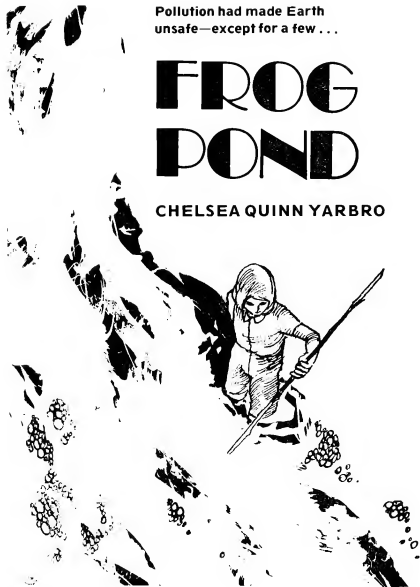
They went over it again at dark-period. And again later while he and Anna looked at nothing in particular out the ports. Some time later yet he showed her a script he'd fixed for the wall of Medbase Free Enclave:

*Launched in abyssal cupolas  
of space  
Toward endless terminas, Eas-  
ters of speeding light—  
Vast engines outward veering  
with seraphic grace  
On clarion cylinders pass out  
of sight.* ★

Pollution had made Earth  
unsafe—except for a few . . .

# FROG POND

CHELSEA QUINN YARBRO



**N**O MATTER what Mr. Thompson said, it was a good day for frogging and fishing. The morning sun had that bright double halo that meant the whole day would be clear. I got up before Mom, took some old pie from where she hid it last night, grabbed my wading shoes and net and lit out for the creek. I had to leave real quiet. I'm not supposed to be going down to the creek any more. They say it's dangerous down there.

But the creek ain't dangerous if you know what you're doing. You just have to stay away from the pink water spots and you're safe all the way.

I took the long way around the Baxter place. I think Pop was right about them; something's wrong there. Dr. Baxter ain't been at Town Meeting for a long time. Pop thinks that maybe some sick people moved in on the Baxters.

So I walked through the brambles on the edge of the woods where the new trees are growing. It was sunny and fine and the breeze came in nice and sweet from the north. No cities up that way, not for hundreds of miles.

Caught some crickets along the way, the big kind with the long wings. They make good bait for the stickery fish in the shallows. All I got to do is tangle them up in the net and put it down in the water. The stickery fish go right for em. Mr. Thompson, he says that it ain't safe to eat 'em, which just shows

you how much he knows. I eat 'em all the time.

I headed right for Rotten Log Hollow. There's a nice big hole in there and a gravel bar and you can catch lots of frogs there if you're careful. They like to hide under that old broken pipe, under the foam. I got maybe a dozen there, last time out.

First I walked along the bank, looking down into the water to see what was there, you know. It was still and there wasn't a lot of foam piling up. There wasn't any fish either, so I sat down in the warm gravel, ate my pie and pulled on my wading shoes. They've got high tops that Pop always tells me to pull all the way up, but I ain't bothered with that for years. Heck, a little water can't kill me.

After a little while I went into the water real cautious - careful not to scare the frogs. I worked my way out into mid-stream and started peering around for frogs. I had my net in my belt but I don't use it much - not for frogs.

So there I was in the creek, careful as could be, when all of a sudden this bunch of rocks and grass comes rolling down the bank and this city fellow comes down after it, trying to grab hold of bushes on the way. He hit the pipe and it stopped him, but he sure messed up the water.

A couple of minutes went by and he started to get up. He had a heck of a time doing it. He kept flailing

his arms around and pulling himself back onto the pipe.

I was mad because he'd scared the frogs, so I yelled out, "Hey, mister, don't do that!"

Boy, did he look up fast. You'd of thought I was a C.D. man or something the way he snapped around. His eyes got wild and he shook all over. Before he could fall again I called out. "It's just me, mister, down in the creek."

He turned around, grabbing the pipe for balance. I waited till he'd steadied himself and then I said, "You're scaring the frogs."

"Scaring the frogs?" he yelled back, sounding like frogs were monsters.

"Yeah. I'm trying to catch some. Can you just sit there a minute?"

I could see he was thinking this over. Finally he sat back on the pipe like he was worn out and said real quiet, "Why not?" And he leaned his head back and closed his eyes.

**I** GOT three frogs while he was sleeping there. They were big and fat. I put a stick through their throats and let 'em dangle in the creek to keep fresh. I almost had the fourth one when the city guy woke up.

"Listen," he called to me. "Where am I?"

"Rotten Log Hollow."

"Where is that?"

I sure couldn't see the point in yelling all the time, so I told him to

come closer and we could talk. "Talk makes less noise. Maybe I can still catch some frogs if we're just talking."

He hustled off the pipe and scrambled along the shore, splashing dirt and stones into the water.

"Hi," I said when he got closer.

"Hello." He was still awful nervous and had that funny white look around his eyes, sort of like turtle skin. "What's your name?"

He was really trying to be friendly and even if Mr. Thompson says in that spooly voice of his that there ain't any friendly strangers, well, this guy wasn't anything I couldn't handle.

"My name is Althea," I told him, polite like Mom tells me to be. "But mostly my friends call me Thorny. Who are you?"

"Uh..." He looked around then back. "Stan! Stan! just call me Stan."

You could see that he was lying. He wasn't even good at it. So I said, sure, his name was Stan. Then I waited for him to say something.

"You like this place?" he asked.

"Yeah. I come here lots of times."

"You live around here, then?"

A dumb question. He was really all city. Maybe he thought we had subways out here in the country. He kept looking around like he expected a whole herd of people to come running out of the pipe.

"Yeah. I live at the Baxter place." It was a lie but he'd told me

one—and besides, Pop said I wasn't to tell people where we live, just in case.

"Where's that?" He said it like he wasn't really interested, like he didn't give a damn where the Baxter place was. He just wanted to talk to someone. I pointed back toward the Baxter place and told him it was about a mile along the road.

"Do a lot of people live there, at the Baxter place?"

"Not too many. About six or seven. You planning on moving in, mister?"

He laughed at that. It was one of those high laughs that sounds like crying. My brother Davey cries like that a lot. It ain't right a six-year-old kid should cry like that. About this Stan or whoever I didn't know.

"What's funny, mister?" I would have gone and left him there, but I saw that he was standing almost in some green gunk that comes out of the pipe and washes on shore so I said to him a little louder, "And you better get away from there."

He stopped laughing. "From where? Why?"

Wow, he was nervous.

"From that." I pointed so he would get panicked again. "That stuff is bad for you. It can give you burns if your not used to it." That isn't quite right. Some people can't get used to it, but it never burned me, not even the first time. Mr. Thompson says that means selective mutations are adapting to

the new demands of the environment. Mr. Thompson thinks that just because he's a geneticist he knows everything.

Stan leaped away from the green stuff like it was about to bite him.

"What is it?"

"I don't know. Just stuff that comes out of the pipe. When the Santa Rosa pumping station got blown up a couple of years back this broke and started dripping that green stuff." I shrugged. "It won't hurt you if you don't touch it." Stan looked like he was going to start laughing again, so I said, real quick, "I bet you're from Santa Rosa, huh?"

"Santa Rosa? What makes you think that?" He sure got jumpy if you asked him anything.

"Nothing. Santa Rosa's the first big city south of here. I just figured you probably had to come from there. Or maybe Sonoma or Napa, but those ain't too likely."

"Why do you say that?" He was real close now and his hands were balling into fists.

"Simple," I said, trying to keep my eyes off his fists. He must have been sick or something, the way he kept tightening and loosening his fingers. "The big highway north is still open, but not the one between Sonoma and Santa Rosa."

He wobbled his head up and down at that. "Yes, yes of course. That would be why." He looked at me, letting his hands open up again. I was glad to see that. "Sor-



ry, Thorny. I guess I'm jumpier than I thought."

"That's okay," I told him. I didn't want to set him off again.

**S**O STAN stood back and watched me while I looked for frogs.

After a while he asked me, "Is there anyone needing some help on their farms around here? Anyone you know of?"

I said no.

"Maybe there's a school somewhere that needs a teacher. Unless I miss my guess I could teach a few things. You kids probably don't have too many good teachers."

What a spooly thing to say. "My Pop teaches at the high school. Maybe he could help you find work." We didn't need teachers, but if Stan knew about teaching maybe one of the other towns could use him.

"Were you born around here?" Stan was looking around the hollow like anyone's having been born here was real special and unlikely.

"Nope. Over at Davis." That was where Pop had been doing the research into plant viruses, before he and the Baxters and the Thompsons and the Wainwrights and the Aumendsens and the Leventhals bought this place here.

"On a farm?"

"Sort of."

His voice sounded like being born on a farm was something great like saving the seaweed or

maybe going back to the moon some day.

"I've always wanted to live in the country. Maybe now I can." He stumbled along the bank to the sandy spot opposite the gravel bar and sat down. Boy, he was really dumb.

"There's snakes there," I said, real gentle. Sure enough, up he shot, squealing like Mrs. Wainwright's pig.

"They won't hurt you. Just watch out for them. They only bite if you hurt 'em or scare 'em."

And with him jumping up and down I wasn't going to get any more frogs, that was for sure. So I decided to settle just for conversation.

"Is any place safe in this bank?" he asked.

"Sure," I said with a smile. "Right where you were sitting. Just keep an eye out for the snakes. They're about two feet long and sort of red. About the color of those pine needles." I pointed up the bank. "Like that."

"Dear God. How long have the pine needles been that way?"

I slogged over into the deep water. "About the last five, six years. The smog does it."

"Smog?" He gave me a real blank look. "There isn't any smog here."

"Can't see it or even smell it. Mr. Thompson says there's too much of it everywhere so we can't tell its there any more. But the

trees know it. That's why they turn that color."

"But they'll die," he said. He sounded real upset.

"Maybe. Maybe they'll change."

"How can they? This is terrible."

"Well, the pines are holding up. Most of the redwoods south of the Navarro River died years ago. Lots of them are still standing," I explained, seeing him go blank again. "But they aren't alive any more. But the pines here, they haven't died yet and maybe they aren't going to." A real sharp shine was coming into his eyes and I knew I had said more than I should have. I tried to cover up as best as I could. "We learn about this in school. They say we'll have to find ways to handle all the trouble when we grow up. Mr. Thompson tells us about biology." That last part was true, at least.

"Biology. At your age."

That kind of talk can still make me mad. "Look, mister, I'm fifteen years old, and that's plenty old to know about biology. And chemistry, too. Just because this is a long way from Santa Rosa, don't think we can't read or like that."

I was really angry. I know I'm little, but, heck, lots of people are small now.

"I didn't mean anything. I was just suprised that you have such good schools here." Boy, that Stan really couldn't lie at all.

"What do they teach where you

come from?" I knew that might make him jumpy again, but I wanted to get back at him for that.

"Nothing important. They teach history and language and art with no emphasis on survival. Why, when some of the students last semester requested that the administration include courses in things like forestry, basket making and plant grafting, they called out the C.D. and there was a riot. One of the C.D. " Stan licked his lips in an odd way "was ambushed and left hanging from a lamppost by his heels."

"That's bad," I said. It was, too. That was the first time I found out how bad it had got in the cities. Stan was still smiling when he told me what had been done to the C.D. It wasn't nice to hear. He kept trying to make it better by calling it gelding. He said that the last time they did it was during the black-white trouble.

And that guy wanted to teach in our schools. He said that he knew what it was really like with people all over and could contribute to our system. I could see Pop's face getting real set and hard at what Stan was saying. But Stan insisted he thought that it was very important for people to understand "The System"—like it was a religious thing. You know? I was beginning to get scared.

"Fifteen is too old," he went on. "Do you have any brothers or sisters younger than yourself?"

I WAS pretty cautious about answering him. "Yes. I got two brothers. And one sister." I didn't tell him that Jamie was already doing research work or that Davey didn't do anything. Or that Lisa was getting ready to board in the next town so that we could keep the families from interbreeding too much.

"Older or younger."

"Mostly older." So I lied again. At least I was good at it. He didn't think to ask anything more about them.

"Too bad. We are going to have to change what's been happening. Martial law, searches without warrants, confiscations. It's terrible, Thorny, terrible."

He must have thought that living out here we didn't hear anything or see anything. He kept telling me how bad it was to have soldiers everywhere and how they were doing awful things. I knew about that and a lot of other things, too. And I knew about how there were gangs that killed people and robbed them—and murder clubs that just killed people for fun. Heck, Jules Leventhal used to be a clinical psychologist and he taught us a lot about the way mobs act and how too many people make problems for everybody.

"How are things north of here?" Stan was asking.

"Not too bad. Humboldt County is doing pretty good and there are more people around the

Klamath River now." I sure didn't want a guy like him staying with us. I figured that maybe telling him about conditions in north might encourage him to move on. But he just looked tense and nodded, like that crazy preacher who wanted us all to die for god, a couple of years back. "Of course, that's redwood country so they might have trouble there in a few years."

He looked at me real hard. "Thorny, do you think you could tell me how to get to Humboldt county?"

Dumb, dumb, I told you. All he had to do is keep going up old 101 and there it would be. That crazy guy hadn't even looked at a map. Or else he had and was trying to trap me, but I ain't easy to trap.

"You can keep going up the main highway," I said, talking real sincere-like. "But there might be C.D. men up ahead, you know, near Ukiah. Or Willits. The best way is to cut over to the coast and just follow it up."

There, I thought. That ought to get him; he was jumpy enough before.

"Yes, yes, that would work. And Eureka is a port—there would be the ocean for access."

He went on like that for about five minutes. He wanted to launch some kind of attack against The System, to protect the People, but for another System. He kept talking about rights

and saying how he knew what the People really wanted and he would change things so that they could have it. He said he knew what was best for them. Wow, I wish Mr. Leventhal could have heard him.

"And what about you? You should be in school, right?"

"Nope," I said. "We have school just two days in the week. The rest of the time is free."

I wondered if that much had been all right to tell. We weren't supposed to let out much about our school.

"But it's a waste, don't you see?" Stan crouched down on the bank, looking like a huge skinny

rabbit squatting there. "This is the time when you must learn political philosophy. You should be learning about how society works. It's terribly important."

"I know how society works," I said.

Heck, all the kids who learned from Mr. Wainwright know about that. After all, one of the reasons the Wainwrights came along with the rest of us was that the politicians in Sacramento didn't like what he was teaching about the way *they* worked. And they were society.

"Not this society," he said in a real haughty way, like Mr. Thompson when he's crossed. "Society in

---

---

Want a way out of whatever  
it is you're in? Then read—

**IF**

*The Magazine of Alternatives*

---

---

the cities, in the population centers."

He was going on that way when I saw a couple of frogs moving on the bottom. I watched where they were going and then I reached down for them, holding my breath as my face hit the water. I dragged one of them out but the other got away.

"Spending your time catching frogs," Stan spat.

"Sure. They taste real good. Mom fixes 'em up with batter and fries 'em."

"You mean you eat them?" he squeaked, looking gray.

"Of course. They're meat ain't they?" I waded over to the other frogs on the stick and stuck the new one on, too. He wiggled and jerked for a bit and then stopped.

"But frogs? How can you eat frogs?"

"Easy." I didn't think he was going to get over it: that we eat frogs. Just to be sure, I reached over and grabbed the stick with the frogs on it. "See? This one," I put my thumb on one's belly, "is the fattest. It'll taste real good."

"And do you really chase after them without seeing them?"

I turned around and looked at him. He was standing up on the other bank and the frightened look was back in his eye. "No. You got to see what you're after."

"But in that water —"

"Oh, I don't open my eyes like you do," I said, real casual-like. "I

go after them with these." And I slid up the membranes.

Stan looked like he'd swallowed a salamander. "What was that?" he demanded, looking more scared than ever.

"Nictating membranes - I was engineered for it," I said.

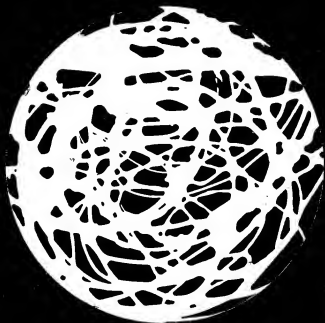
"Mutants," he gibbered. "Already!"

He started trying to back up the bank watching me like he thought I was a werewolf or something. He slipped and stumbled until he got to the top and then he ran away - I would hear him crashing through the brush making more noise than a herd of deer.

By the time he left the whole hole was filled with leaves and sticks and rocks and I knew that there wouldn't be any more frogs or fish that day, so I took the frogs on the stick, got off my wading shoes and started back for the house. I knew Mom would be mad but I was hoping that the frogs would help her get over it. I guessed I had to tell them about Stan. They didn't like people coming here.

They were real mad about it. The funny thing is that they were maddest about my having shown my eyes. But cripes, that was just one little flap of skin that Mr. Thompson got us to breed. Just one louzy bit of extra skin near the eye.

But to hear him tell it, you'd think he'd changed the whole world. ★



# HERE COMES THE SUN

DUNCAN LUNAN

A dead world, a dying star—  
and desperate rescue in the  
face of flaming odds!

**A**S IT happened, after all the argument about its value to earth, no technical teams were working on the RLV when McKay came back to it. Sitting alone in the big hangar, the white ship did not look too different from the USAF jets he had passed on the way over, for all its alien markings. It had the chunky lines characteristic of high-performance aerospace-craft, whether from Earth or anywhere. McKay tapped his pocket communicator--the airlock door dropped from the underside and he boarded his personal delta-winged headache.

Consider first the Interface, that great net of interstellar matter transmitters in which Earth now shared. Whoever had originated the technology, it had passed into the hands of the Fallaran, a humanoid race from a high-gravity planet. They had taken the spread of the Interface as a racial ideal and mounted a great survey force, the Furtherance, to carry the relays across interstellar space; and in due course they met the Sasarenn, a reptilian species whose only ideal was competition. About the middle of Earth's nineteenth century the Sasarenn War Fleet set forth to hold back the Furtherance, occupying star systems ahead of them, then spreading from star to star as the Fallaran threw them out. As uncompromising as the Sasarenn in

their own way, the Fallaran could not bring themselves to leave any inhabited planetary system out of the Interface; but shifting the Sasarenn grievously damaged the victimized planets. Through Victoria's reign and two World Wars, the battle front had spread out and about the time of men's first moon landing the two fleets began their interstellar race to Earth.

The Sasarenn, from a position of strength, rather than occupation, held the Solar System for three months of 1981. McKay, hauled from an orbiting Apollo and appointed Earth planetary agent, had worked the trick which finally shook them from Earth and the Interface. As mementoes, he retained the Sasarenn Recovery and Liaison Vehicle, his badge of office, and a communications relay embedded in the back of his skull. The ship's computer-autopilot, though no longer fanatically anti-Interface, could still kill him if he went too far with it.

When the relay gave him a head-swimming jolt, just then, he thought for a moment that he had. But this was only the standard communications alert, set far too high by the Sasarenn to make sure he never missed it. McKay shook his head and plugged in to the ship's perception circuits.

"Acknowledge," he told the computer.

The RLV cockpit had no instrumentation: plugged in, the pilot

had a complete heads-up display, including all-around vision. The signal was coming from a tiny message sphere that had burst out of Interface into orbit near the RLV's fuel store. At the end-of-message pulse McKay acknowledged again and it destroyed itself.

"Where is my crew right now?" McKay asked the spacefield control tower.

"Due here from Houston on a jet transport in three hours. We were notified of their takeoff ten minutes ago."

"Have the plane turned back," McKay said crisply. Control knew better than to argue. He flicked on the ship's external speakers. "May I have the hangar doors open?"

As the ground crew obeyed, he started up the RLV's air-cushion pads and moved it slowly out into the sunlight. The computerized systems check cascaded over the field of view, all perfect. He began stepping up the fusion power level, moving out to the main runway.

"Transport is on its way back to Houston," the tower reported.

"Tell Houston I'm on my way down, please, and give me a clear climb to Interface."

"You can have one now, if you go due east."

"I'll take it." McKay had the intakes open and the jets adjusted for STOL. The ship took off with a roar, wings sweeping forward, then back again as airspeed picked up.

A MILE above Montana McKay contacted the orbiting Interface relay, setting up a straight aerial transfer to the Houston vicinity. A half-mile hole in the sky blinked open, joining north to south without visual spectacle—just the sudden appearance of half a bank of cumulus, which grew swiftly to completeness as the RLV flew through the invisible disc into the Texas morning. As yet there were no procedures set for this—he had shot out uncomfortably close to another aircraft.

"Where the hell did you come from?" Air Traffic demanded as he banked clear.

"Recovery and Liaison Vehicle to Houston field," McKay snapped back. "Is that the transport I'm here to intercept?"

"They were about to start their approach when you sprang out of nowhere," the angry voice replied.

"Never mind. I'll follow them down and pick up my crew. We have a rescue assignment." How to win friends and influence people, McKay thought as he trailed the jet down the sky. The rest hadn't done him much good.

He held off, changing to VTOL thrust as the transport landed, and came down on the grass alongside the runway as the jet turned at the end of it. Slazek and Devlin tumbled out of a hatch and ran across to him.

As they approached, McKay requested and received from the tow-



er a prompt clearance for immediate takeoff.

The mission solved one problem, McKay reflected as Slazek and Devlin came aboard, exchanged easy greetings. After a highly frustrating month in space, personal relations had been pretty strained when the RLV team had last separated. Now they had a new purpose.

"Okay, Mac, we're strapped in," Slazek reported. McKay had found a runway. A surge of acceleration lifted the RLV skyward. "This must be a pretty hot deck—you were throwing weight."

"We're going interstellar again. Officially, this time. A personal message came through from Kiliath—he wants us to haul some friends of his off a planet somewhere in the Interface."

Slazek asked, "Some Furtherance boys in trouble?"

"You could say that. They're researchers, studying a sun approaching nova. It seems they miscalculated the date: the star's ahead of schedule."

Nothing shook Slazek. "How long do we have? And where's 'somewhere'?"

"We have a few hours. The sun's on its last pulse now. We'll tune in a fix presently." The RLV was still climbing. "We'll get out of your hair," McKay told Air Traffic after acquiring the satellite again. "Up Interface."

Not to impose the world's end on the Texas sky, he was going up to

the satellite first. A two-dimensional circle of blackness opened before them and as they moved out of the sunlight, the bright dust of distant stars came out across it. The ship emerged silently into space far above Earth's night and the blue sky behind was scrubbed away.

"All right, you guys, let's go."

**T**HE Interface system was quite something, McKay reflected as the RLV paused in parking orbit to permit its crew to get into pressure suits. Any spot in the Galaxy could be reached as easily, given an Interface relay within reasonable reach. The hard bit was Furtherance, the task of physically hauling the relays from star to star. To date the Interface encompassed only a small part of one Milky Way arm—but that meant thousands of stars and hundreds of races, man newest of all. For all their often embarrassing dedication to Furtherance, McKay had a great respect for the Fallaran and their achievements—always provided Earth escaped being overrun by the member races of the Interface.

"One thing I don't get, Mac," said Slazek. "I thought from my dealings with Kiliath that the Furtherance space research was all in the nature of survey work. Why have they been fooling around with a star that's going nova?"

McKay couldn't answer that. "We still have very little idea what goes on in the Interface itself. 'Furtherance' is fine—but Furtherance of what?"

"Why, for instance, doesn't Kiliath make the rescue himself with one of the big starships?" asked Devlin.

"That's what the U.N. would like to know, I expect," said McKay as they returned to the cockpit. "After we came so near to losing our ship on the last mission, they think we should refuse any more rescue assignments."

"I can't see any point to that," Slazek observed. "Since the ship still thinks of itself as part of an active fighting unit, it won't let itself be pulled apart for study. All we *can* do with it is gain operational experience. We need to use every chance."

"Right," said McKay, plugging in again to the featureless panels. "Use it, risk it and learn from it, I say. But they want me to restrict its use to liaison assignments."

"If we refuse rescue missions we won't *get* any liaison assignments," said Slazek. "The Furtherance commanders are pilots, not politicians."

The ship was a headache, McKay thought again as he set up Interface for the nova system. With anti-personnel systems inside and out, the computer-autopilot—a law unto itself in these matters—could quite literally carve

up any spies who tried to probe the ship's design. Most ways in which it surpassed human technology—the fusion pile, the high-energy fuel (processed somehow from liquid hydrogen) and the computer-autopilot itself—were consequently beyond examination. Even in flight the RLV exercised its own judgment: quite possibly it would decide the coming rescue was too risky or contradicted the Sasarenn programing. Under such circumstances it could refuse to obey him.

McKay activated the relays with some caution. But the vision of disaster he half expected did not materialize: save for the electronic display, he wouldn't have known there was an Interface there. He fired the vernier motors and the ring traced by the computer moved up and over them. The daylit face of the planet loomed out from behind it—and seconds later the ship was in sunlight.

**J**UST ordinary sunlight, white sunlight—the RLV's sensors were unable to detect the merciless contraction supposed to be going on there. But the sun was already a good deal hotter than Earth's and its output, according to the sensors, was going up even as they watched. McKay felt an old tension, left over from test pilot days, clamp down on him.

The computer began to translate

details of the Fallarans' predicament.

The Fallaran had an outpost here, an orbital research installation that could escape at a moment's notice. But a party of scientists had landed on the planet to study the effects of the recent peak in the sun's output. They had mistimed their subject. Instead of swelling slowly to a dull, distended red, the star had flared violently and was already caving in for the final detonation.

McKay cut off the computer translation, which was struggling incoherently with advanced Fallaran astrophysics. The important point was, the weather had boiled up down there and the team's own ship had been wrecked trying to pick up the Fallaran scientists. The RLV, designed specifically for rescue missions, might just be able to get them out in time.

He switched on the translator again.

"There are six of us down there," the Fallaran voice came on. The neutral translation was still tripping, seeking verbal correlatives for strong emotion. "Not all have protective clothing—"

This man—McKay found himself unable to think of the Fallaran as an alien—was blaming himself for the miscalculation. The computer couldn't cope with what he wanted to say.

"We'll go down at once," said

McKay. "I suggest you retreat to safety. Are they on this side of the planet?"

"We will be over the city in ten minutes."

"City? Is the planet inhabited?"

"The last emigrants left Tessar many centuries ago."

With Interface, McKay realized, interstellar evacuation would indeed be possible.

"That partly explains the Furtherance presence, perhaps," said Slazek. "This isn't a new survey, it's the last act of an epic."

"What were we doing on Earth at the time?" McKay murmured. "Crossing the Atlantic?" Where, he wondered, could the evacuees of an entire planet go? Kiliath hadn't told McKay that he, Slazek and Devlin would share the death of someone else's homeworld. Tessar—until now McKay had not even known its name.

The city was coming up now, though it was hidden by storm-clouds moving inland from the angry-looking sea. With luck, they might have a break in the weather for the actual pickup.

"Let's go—up Interface."

Moving from space to atmosphere was always tricky. McKay had put the disc at twenty thousand feet, but still turbulence threw the ship about before he got the jets going and the wings properly swept. Conditions were getting pretty rough down here. Before entering the clouds, McKay took

another sight of the sun: allowing for the atmosphere, it was already five percent hotter than when the RLV had arrived.

"The sun's contraction should slow up when helium burning starts," Slazek suggested.

"If it's going nova, it's been burning helium for thousands of years," said McKay, straining his memory. "Even if the burning's intermittent, I should say it's going again now." He had never imagined in his Project Apollo days that stellar physics could mean life and death to him. "It's been pulsating with increasing force and frequency—until now it's unstable. On this contraction temperatures and pressures in the core will go high enough to start synthesizing heavier elements, and that energy release will trigger higher synthesis, up the packing fraction curve till the explosion stabilizes—if you see what I mean by a stable explosion. But I'm not sure whether that means a sequence of explosions, each more violent than the last—or if the sun's output will go on rising asymptotically—"

"It won't make any difference, skipper, unless one alternative gives the ship more time," said Slazek. "And the only people who could brief us on what has gone before have had the good sense to get out of here."

"We'll do likewise," said McKay. "RLV to ground party,

we are approaching the city now. Stand by for immediate pickup."

**G**REAT bolts of lightning were splitting the sky but the computer translation freed the reply of interference. "We are not in immediate danger. Please first rescue our colleagues in the heart of the city."

Now what? "Explain, please." The RLV was coming down through reddish storm-clouds, with only glimpses of the darkened city ahead.

"There are only two of us at this point—we had come down from the satellite to retrieve the others and were maneuvering to land on a rooftop when the storm came. The shuttle was not built for such conditions and we crashed in the seaward part of the city. We have protective suits, but our friends in the city have been forced to shelter from the growing heat."

"I thought we were having it too easy," McKay commented. "How can we locate them?"

"There is a marker on the roof of the building. When we heard last, they were retreating below street level."

"As long as the marker hasn't blown away—" said McKay as they began their run across the city. "Our sensors are good but they won't penetrate solid stone."

Close up, the age of the city was obvious. The buildings were shells, many of them in advanced

ruin. Some ground disturbance—it didn't look recent—had split off the city's seaward section, lowering it below sea level, leaving only a welter of white water within the old sea wall. Toward the land, where a few towers were still standing in the spray, the sensors pinpointed the partly submerged wreck of the Furtherance shuttle. Beyond the foaming water in the fissure, the rest of the city was coming down in the storm: the streets were filled with flying dust.

To McKay's relief, the RLV found the rescue marker on the first pass.

"Now all we have to do is get down there.

He pulled the ship up into slightly calmer air.

"We can't set down in that, for sure," Devlin agreed. "We'd be blown into something before even this autopilot could correct."

"We'll have to get down fast and we'll probably need the rockets to get back up again."

He hovered at a safe height until the wind's fury began to abate. The tension remained with him, not growing, but bigger in his awareness than the outside situation itself. Little by little the clouds lifted, the scene lightened; the air over the city began to clear as the dust fell into eddying swathes. The street he had picked out for the touchdown was practically clear when he brought the ship in. The wind was still high, but the VTOL

jets could cope with it now. He slowed the descent, almost hovering as the landing blocks went down.

"That roadway's *liquid*," Devlin said. "We can't get across that without an air-cushion."

One of the RLV's strongest design points, McKay had often thought, was that it could float or taxi on its pads without utilizing its main engines. He was never more glad of this feature than right now, as he cut the jets and left the ship floating above the molten road.

"Outside temperature's one-eighty Fahrenheit and still rising," he said. "We're going to need armor."

"We're going out?"

"How do you expect them to know we're here? They'll be underground. And how would they make it to the ship? We have to take suits to them. You and I, Devlin. Slazek stays here to mind the store."

The protective suits that went with the RLV were not wholly suitable for this situation. They reflected heat, certainly, but that was because they were built to reflect laser beams and bullets—another reminder of the kind of rescue mission the Sasarenn had had in mind. For the present situation they were over-protective, a good deal too heavy.

"Problem, Mac," said Devlin as he finished suiting up.

"Which one?"

"Two of us, four of them, only four suits."

"We'll have to take in two stretcher units. They can carry the suits we do have and float us across that road."

**M**CKAY had absolutely no quarrel with the design of the stretcher unit, which he thought was a masterpiece. For rocket maneuvers acceleration shields could be closed around the RLV's G-couches. The same unit, separated from the ship's power and life-support systems, could be launched as an escape capsule. Released at ground level, it became an air-cushion stretcher or sled, maneuvered by air jets and you passed it straight back into the RLV cabin through the escape hatch, without having to get your casualty through airlock decontamination. If you wanted to take a miniature cannon along the unit became a highly effective gun carriage.

Slazek guided two such units to where McKay and Devlin were waiting in the open airlock. Standing on the ramp/door, the two men loaded the empty suits, stepped carefully down after them and floated across the roadway toward the building.

Ash and dust swirled under the stretchers as they crossed the last strip of ground before the entrance, passing statues of the old inhabitants presumably. The

sculptures might have been of animals—they might have been of gods—the last hot peak in the star's output had thawed them down into twisted, unrecognizable blobs.

Something had awakened here, McKay thought. His tensions were seeking personification. Some old deity, Wordsworth's *something far more deeply interfused Whose dwelling is the light of setting suns . . .* had come to walk the deserted streets and the touch of the dying sun had driven the statues mad. As if to add terror to the thought, the sun itself came out from the trailing edge of the cloud and glared at him.

He could feel the heat of it even through his armor. He called the RLV: "What's the output now?"

"Up fifty percent since we arrived, Mac."

Devlin muttered, "Let's get out of here."

They steered the air-sleds into the relative darkness of the building, looking for the refugees' route in the thick dust. On top of weather damage, the whole place wore a scorched, glazed look, the halls hollowed out by fire and heat in successive pulses of the sun outside.

*It's all going next time, McKay thought. There'll be a hot time in the old town tonight. Will we still be here when it all burns down?*

McKay spoke into his suit mike: "Hello, hello - can you hear us?"

They found footprints leading down one of the ramps and followed them down till one slope was too much for the stretchers. The increasing heat had forced the Furtherance team deeper and deeper, farther from radio contact and rescue. McKay and Devlin came upon stranded ETs three floors below street level, exhausted and semi-conscious.

The Fallaran were from a high-gravity planet; short and powerfully muscled, they were still relatively lightweight. Once into the suits, two of them partly revived—with their thick skins, the ETs had found the increasing heat a real problem. Getting the other two to the stretchers and safely shielded took longer; the aliens would ordinarily have found the suits no burden, but now they were too weak to be much help.

"Just as well we didn't bring stretchers for everyone," Devlin commented when at last they were ready to head back.

As they moved toward the surface, there was a crash of falling stone in the dark behind them. Dust lifted from the floor and danced before their torches. "This whole place is ready to come down," said McKay. "We must be out of here before the storm hits again."

White sunlight was still striking into the entrance hall as they came back—and under it, the floor was smoking. Beyond the doorway

was a landscape of hell: the roadway itself was burning, great sheets of yellow flame rolling on it and the RLV was immersed in thick black smoke. Peering down the street, McKay could see the new storm front coming up from the sea.

"Bring the ship to us, Walt, before that weather gets here—"

**H**E DID use the takeoff rockets to get back above rooftop height, since the storm was only minutes away. The sun's radiation output was now three times what it had been when they arrived—McKay imagined the Earth falling vertically toward the sun, passing the orbit of Venus and still accelerating. Whether the heat would climb ever more steeply or go up explosively, McKay thought, it would outpace the RLV's refrigeration before long.

He had seven people in a ship built to carry only six as he turned back toward the sea. All the couches were filled and Devlin was in the airlock, standing by to pick up the pilots. One of them could squeeze into the back of the cabin, the other two would have to ride in the lock.

"We aren't going to make this, Mac," said Slazeck. Already the storm front was towering over the city.

"Get back into the cabin, Dev," McKay ordered as he approached the seaward blocks, converting

again to VTOL thrust. "I'll puff down the lines from here. We must get you aboard," he radioed to the pilots, "before that storm hits."

He saw them start across the roof, small figures clumsy in their metallic armor. Sighting with the ship's perception, he fired the airlock lines to them. One caught his and was raised to the airlock in seconds by the high-speed winch; the other line was blown across the roof. The pilot almost had it when the storm struck.

The RLV lifted bodily, jets screaming for control—the line was whipped away and the Furtherance pilot stumbled and was blown over the edge. McKay glimpsed him, a tiny bright figure, tumbling into the tumult of water surrounding the building then rain and spray blotted out everything.

The RLV was being carried blindly into the crumbling towers of the city. The computer had the command decision; McKay concentrated on tidying up—dropping the lines, closing the lock, flooding lock and rear cabin with acceleration foam—as the autopilot hauled the nose of the ship around to the vertical and fired the fusion sustainer motor. The blue star of the flame cut through the storm, reflecting back from the disintegrating faces of the buildings, as the ship leaped upward and out of danger.

Back in the fierce eye of the sun,

McKay cut the rocket and switched to ramjet thrust, leveling out. "I am deeply sorry for the death of your friend," he told the Furtherance team. "The Interface relay will be back above the horizon in a few minutes and we shall escape from this place."

"All but one are safe," said the computer translation. "It is more than we could have hoped for."

They continued to gain height, waiting for the satellite. Storm clouds and flying dust obscured all the land below. "I have set Interface for a direct transfer to the Earth satellite," McKay went on, to make conversation. "From there we can take you to our base to recover."

"We thank you. However the hospitality of your satellite will suffice."

McKay understood. For all their pride, in their self-appointed task, the Furtherance people were extremely sensitive and would take this accident very much to heart.

Minutes passed.

"Where," McKay exclaimed at last, "is that damned satellite?"

**H**E HAD been trusting too much to the RLV's refined systems. He had selected perception circuits to report acquisition of the satellite, as ordered; so they had not fed him the roar of solar interference he now discovered filled the Interface waveband.



Everyone in the ship, plugged in, shared his finding, except for the two still immersed in acceleration foam. McKay didn't wait to explain to them. He said, as the computer beat out a rendezvous trajectory, "I'm sorry, those of you without couches, but we are going back on rocket acceleration. Three-second warning, primary boost." The nose of the ship lifted, the air intakes closed and flame to rival the sun's split the sky behind them.

"Will the satellite still be there, Mac?" Devlin asked as they raced upward.

"It had better be," said McKay.

"I'm going for a rendezvous on the dark side, in hopes we can make contact before we reach it. Damn thing has a normal range of ten thousand miles, after all."

Entering the stratosphere, McKay switched up to secondary boost as soon as he dared. It was dangerous to run the fusion motor at full power to the ground, though in this case damage to the ground scarcely mattered; but with the ship one-third overloaded, a fast transfer would eat fuel. The ship curved up into space, away from the brilliant sun which seemed, with its increasing heat, to be following them.

---

## **WORLDS OF TOMORROW, SPRING 1971**

**SUMMONS TO THE MEDICMAT**  
**Sydney Van Scyoc**

•  
**EPIC**

**William Rotsler**

•  
**HEART OF THE GIANT**  
**Larry Eisenberg**

**NOW ON YOUR NEWSSTAND**

With the motors off, they coasted silently along the transfer orbit toward nightfall. McKay had the RLV's search parabola extended, beaming a contact signal toward the satellite—he still caught only interference. There was time now to wonder about the former inhabitants of Tassar and time to ask questions—but his curiosity was gone. McKay was watching the sun as the RLV dimmed its vision circuits constantly to keep it in view. If it was not going to explode, how hot did it have to get before the photosphere began to stream off?

The RIV rounded Tassar and the sun set like blood streaming in the firmament. The horses of the night were out all right, great streamers of aurora shifting over the dark face of the planet, their movements matching the shrieks and howls of interference. Spirits of the dead, as in Earth's legends? All the ghosts of Tassar's history, come out for the final burn-up? They were slow and beautiful, if you could watch them with detachment.

"That interference is getting worse," Slazek pointed out quietly.

"I'm hoping for a lull in a few minutes," said McKay. "We're skirting a shock wave of charged particles trapped by Tassar's magnetic field. There should be a pronounced 'tail' on the dark side from so strong a solar wind, and

I've aimed for us to close with the satellite where the radiation belt is attenuated." We should make it, he thought, given a few more minutes. Only one thing could prevent it now, the sun's premature reappearance around the planet—all round it.

The computer display confirmed his forecast. Incident radiation on the hull began to drop as they cut across the distorted radiation belts. The interference was decreasing in the magnetic lee of the planet—and suddenly they had contact with the satellite.

"Up Interface—"

Again, no visual spectacle: only the confirmation of the instruments that there was an Interface there. But as they moved towards it the black starry disc bit into the Milky Way, then into the pale, streaked face of Tassar. Earth's heavens took over and the invisible disc behind them, still not filled with the fires of the exploding star, snapped shut.

They were, as arranged, riding in orbit high above the Earth with the space station, just going into shadow. The sun was slowly vanishing behind the planet—a peaceful setting for the recuperating scientists. The sun dwindled, to be reborn in due course on the opposite horizon. But, watching the reddened disc tearing at the edge of the world, McKay wondered how long it would be before he was at ease in sunlight again. ★



Something went wrong  
with the subway that night.  
It spewed its people right into—

# GEHENNA

BARRY N. MALZBERG

*Something went wrong with the subway that night. Of course, in New York City not even those directly affected noticed, the capacity for urban disaster having reached its fullest extremes in that well-known tourist attraction.*

## A

EDWARD got on the IRT downtown local at 42nd Street for Greenwich Village. The train stopped at 33rd Street, 27th Street, 17th Street and Christopher Circle. As it turned out he met his wife at this party.

It was a standard, Greenwich Village all-of-us-are damned gathering. She was sitting in a corner of the room, her feet bare, listening to a man with sad mustaches play a mandolin. Edward went over to say hello to her. She looked at him with vague disinterest and huddled closer to the mandolin player, who turned out—on further inspection—to be her date for the night. But Edward was persistent: his parents had always told him that his fearfulness was his chief detracting characteristic—and later that night he got her address.

Two days later he showed up with a shopping cart filled with gourmet food and asked her if she would help him eat it. She shrugged and introduced him to her cats. Three weeks later they slept with one another for the first time and the week after that the mandolin

player and he had a fight, at the end of which the mandolin player wished them well and left her flat forever. Edward and Julie were engaged only a few days after that and during the month he married her in Elktown.

They went back to New York and started life together. He gave up mathematics, of course, and became an accountant. She gave up painting and took to going to antique shops once a week, bringing back objects every now and then. It was not a bad life, even if it had started out, perhaps, a bit on the contrived side.

Three years later Edward opened the door and found Julie playing with their year-old daughter, shaking a rattle and putting it deep into the baby's mouth. The scene was a pleasing one and he felt quite contented until she looked up at him and he saw that she was crying.

He put down his briefcase and asked her what was wrong. She told him that their life had been an utter waste. Everything she wanted she had not gotten—everything that she had gotten she did not want. She was surrounded by things, she told him, she had prepared herself as a child to despise. And the worst of it was that all of it was her own fault. She talked of divorce but only by inference.

Realizing that the fault was all his, Edward said that he would check up on some suburbs, get them a nice-sized house and some

activities for her during the day. And so he did—all of it and they were very happy for a while if gravely in debt—until he came home from the circus one night with his daughter and found that Julie, feet bare, had drowned herself in the bathtub.

## B

**J**ULIE got on the IRT downtown local at 42nd Street for Greenwich Village. The train stopped at 32nd Street, 24th Street, 13th Street and the Statue of Christ. As it turned out, she met her husband at this party. It was a standard Greenwich Village we-are-finding-ourselves party and he came in late, dressed all wrong, his hands stretching his pockets out of shape. He was already very drunk.

She was there with a boy named Vincent who meant little to her but who played the mandolin beautifully and sang her love songs. If the songs were derivative and the motions a trifle forced—well, it was a bad period for both of them and she took what comfort she could. But when her husband-to-be came over and spoke to her—his name was Edward as it turned out

she could see beyond his embarrassment and her misery that a certain period of her life and of the mandolin-player's was over. He wanted her telephone number but because she didn't believe in telephones she gave him her address

instead while Vincent was off changing his clothes. She told him that she was very unsure of herself.

Three days later, while she was still in bed, he came with flowers and candy and told her that he could not forget her. With a smile she invited him in and the first time was very good—better than it had been with Vincent, anyway. Edward was gone when Vincent came later that evening and she told him that she had been lusting after the sea all her life—now she at least, had found a pond. Then she told him what she and Edward had done. He wept and cursed her. He told her that she had betrayed everything of importance, the small reality they had built together—but she was firm. She said that lines must be drawn for once and for all between the present and the possible.

After that she saw nothing of either Vincent or Edward for a week. Then Edward came with a suitcase. He said he had moved out of his parents' home and had come to marry her. She did not marry him right away but they lived together for some weeks— one evening she found a note in her mailbox, just like that, saying that Vincent had committed suicide.

She never found out who had sent the note and she never told Edward anything. But a week later they were married in Yonkers and went to a resort upstate, where they were happy for a few days.

They came back and bought furniture for her flat. He dropped out of astronomy and became an industrial research assistant—or something like that.

For a long time her days were simple—they were, as a matter of fact, exactly like the days she had known just before she met Edward—and the nights were good, pretty good anyway. Then she became pregnant in a difficult sort of way and eventually the child, Ann, was born—a perfect child with small hands and a musical capability. Edward said that they would have to find a real home now—he was very proud—but she said that the old life could keep up, at least until Ann was ready for school. But one night he came home early, very excited and just like that—told her that he had found them a home in the suburbs. She told him that this was fine. He said that he was very happy, and she said the same.

They moved to the suburbs and were content for a while, what with car pools and bridge and whatnot, as well as good playmates and a healthy environment for Ann. But Edward, for no reason, began to get more and more depressed and one morning when she awoke to find his bed empty, she went into the bathroom to find him slumped over the bathtub, his wrists open, blood all over the floor, a faint, fishlike look of appeal in his stunned and disbelieving eyes.

## C

VINCENT got on the IRT downtown local at 42nd Street for Greenwich Village. The train stopped at 37th street, 31st Street, 19th Street and Christ Towers. As it turned out, he lost his girl at this party. It was a standard Greenwich Village look-how-liberated-we-are kind of party and it was a strange thing that the two of them went separately since the 42nd Street stop was the nearest to both of their apartments. But she believed in maintaining her privacy in small, damning ways.

She was sad that night, sad with a misery he could not touch, much less comprehend. It had been a good time for both of them—they had been going together for the four months since she broke off with his closest friend—and he played her songs on his mandolin promises of lost and terrible loves, promises of a better future, songs of freedom and loneliness; and she loved his mandolin. She told him that she found her whole soul in his music.

So he was playing songs for her at the party this night, not even wanting to be there, hoping that they could go back to her flat and put the mandolin beside the bed and make their kind of love, when he saw that she was looking at another man in the corner of the room—a man of a different sort from the rest of them, since he was

the only one who was not already drunk. The man was looking back at her and in that moment Vincent knew that he was quite doomed, that he and Julie were quite finished.

To prove it to himself he left his instrument on her knee and went to the bathroom. When he came back they sprang apart like assassins and he knew that the man had her address. There was nothing to do, of course, but to leave the party and he helped her with her coat, put his mandolin over his shoulder and led her down the stairs. Halfway to the street he told her that she had betrayed them. She did not answer, later murmured that she could not help herself, much less another person—but she would make this night the best of all the nights that she had ever given him.

And so she did, all night and into the dawn while her cat stroked the mandolin, making wooden sounds, rolling the instrument around and around on the floor. In the morning he left her—and took his clothing—and then he did not see her at all for a few days. When he came back there was a different look on her face and the man was in her bed, lying next to her.

He did not care—he had lost any capacity for surprise when she had come from his closest friend, broken enough to need him. He only wanted to meet the man named

Edward (who might become his closest friend too) but the man did not want any part of him at all and there was a very bad scene—a scene that ended only when Vincent knocked the man to the door and smashed him there to the floor.

But he never saw her again, victory or not. He had no need to—everything that needed proof had been proven. But he thought of her often and many years later, when he killed himself by leaping from a stranger's penthouse, his last thought as he felt the dry wind and saw the street coming at him was of his old mandolin, her solemn cat and the night she had given him her best because she had already partaken of his worst.

## D

**T**HE CHILD ANN who had very sensitive and gentle hands became a young woman who was drawn at odd moments to the windows of pawn shops in which she saw old mandolins—and once, for a week, she took flute lessons. But she had no money and less patience—that last was her biggest fault, along with a lack of assertiveness—and she dropped them.

Now she is going to a party in Greenwich Village. She does not know what will happen to her. The night is still a mystery. She is still young enough to scent possibilities in the wind—tonight may hold

some finality, although one never knows. See her, see her—she is in the Times Square stop of the IRT—the engineer sounds a song in the density.

She counts the stops and waits. The train stops at 34th Street, 28th Street and 14th Street. Now it is at Christopher Street and Sheridan Square. ★

## AFTER SEX—WHAT?

*(Continued from page 4)*

stance. You can get just as dead drinking too much spring water as you can by taking too much strychnine. The operative phrase is "too much.") Explicitness to any degree is perfectly okay as long as it functions in the larger structure of the story, but when it's done for its own sake it becomes analogous to the story of a banquet during which the diner obsessively, repeatedly, endlessly returns to the lima beans. Now that the wall is broken, it says nothing for a writer's courage or intelligence to spend his time kicking the broken bricks around.

For there are other battles to fight.

After sex—what?

**F**IRST of all, let us realize that in a strange and wonderful way we are all now at the frontiers of a new after-sex. Afterward, in the largest sense. We can begin to accept one another's sexuality as a facet of the whole person—and learn more about the whole person. When we do this we might begin on some of the other problems we have. Ecology, for example, needs

to be made functional rather than fashionable. You have to qualify to be able to vote, don't you? Then set yourself a rigid set of qualifications and abide by them before you open your mouth to say one word about oil spills or smog. Quit littering, even by so much as a match. Learn such details as that many tints used on paper towels are not biodegradable, though the paper itself may be. Find out how to recycle your bottles and cans rather than discarding them, and then really do it, all the time. *Then* holler about the raw sewage upstream; it will make you feel really good. Actually, Julian Huxley wrote forty years ago that all education—mathematics, history, everything—should be taught from an ecological basis from kindergarten on up. Now that's something to shoot for. Sexually repressed, our species, though sick, might survive for thousands of years, but unless we clean up our spaceship we've got only a few dozens.

And here's another—something I've been trying for a long time to reduce to bumper-sticker size.



There is an inexplicable blindness in the Establishment—and I mean every establishment for the last seventeen thousand years minimum—which makes it believe that if you can instill enough fear you will eliminate anger. Despite repeated proof—empires overthrown, Caesar stabbed, independence declared, *juntas* formed—the powers-that-be still seem to feel that more laws, more police, more repression, more restriction will in some way stop the people from becoming angry. It is my firm conviction that the flame that burned that body in the bunker in Berlin was kindled in Coventry by Hitler himself. Early in the war, riding high, the Germans bombed Coventry (not even a military target) flat into the ground. The idea was to scare the British so badly that they wouldn't fight. It scared them, all right. It terrified them. It also made them so coldly and unremittingly angry that the fire burned the body—and on the way created firestorms in Dresden and Hamburg that killed more people than the atom bombs.

The sense of my bumper-sticker, if I ever get it titrated down to few enough words, is this: "You who rule, listen. Forget all the humanitarian glop; you don't believe in it anyway. But in your own self-interest, make yourself understand the simple fact that scared people get angry, and when enough of them get angry enough

they'll have your head. What you're doing isn't the enforcement you think it is—it's suicide."

A government sans fear might have some weird and colorful ups and downs, but it stands a chance to last. Enough force, enough repression, and you have yourself another thousand-year (hah!) Reich. It seems so simple, doesn't it? Yet they haven't learned, and the teaching presents at least as much of a challenge to writers and readers and thinkers as the right to scribble some gossip about a juicy incest.

**I**'LL give you just one more challenge, to suggest an answer to "After sex—what?" And this one is, I think, really comprehensible only to the sf audience; you're geared to this kind of thinking.

Some years ago someone (and if you'll tell me who, I'll be grateful) wrote a story about an alien who was captured by Terrans, who wanted to discover if he was intelligent and if so, in what ways and how much. So they constructed a whizzer of a maze, with physical and psychological twists and turns, go-no-go problems, decision-making doorways, the vastly evolved equivalent of the long stick in short pieces that psychologists put in chimp cages, to see if they can screw it together to get the bananas—the works. So they shove this ET into the maze and sit back to watch, and he goes zip, twist,

jump, skid, zang, whump through the whole thing in about one-third the time it would take the guy who designed it. Whereupon he just sat. And everybody says wow, let's call up more people; they've got to get a load of this over at Operations. So with a new larger audience they put the alien in the starting gate again and say Go. Only he doesn't go. He just sits there. They prod him a lot but nothing works; he just sits there. Well, the twist is that he's so damned intelligent that he recognizes the maze for what it is, and demonstrates that he can solve it, but it just isn't in him to understand why, having made the demonstration, it would be necessary to do it again.

All right: human beings are capable of learning simple concepts. Some concepts, however, are (for humans) so obscure that the only way to get them to understand is to elaborate, to candy-coat, to create suspense and continuity around them and gradually, while bringing in a huge emotional quantum, reveal the underlying truth—otherwise we just won't buy it. Shakespeare's *Hamlet*, Heller's *Catch-22*, Miller's *Death of a Salesman* are towering masterpieces, but each one of them has a point to make (and it's a beauty) which could be stated in a single declarative sentence. However, that single sentence won't do for human beings;

they have to have the whole megillah. Only a small fraction of the population gets to see towering masterpieces, and of those, only a few grasp the simple insight. This is so true of so many of us that we have never recognized it as a problem, as a racial defect; but it is, and one of the first magnitude. As far as I know, no one has ever recognized this obtuseness for what it is, nor given it a name, nor regarded it as the opaque cataract it is over the human vision. But the problem-solving ET, landed on this planet, would walk around in absolute astonishment as truth after truth, fact after fact, simple solution after simple solution appeared to us everywhere, only to be ignored unless wrapped up in some huge dramatic experience—and even then, ignored by all but a very few. The intelligent ET would have a right to ask why is it that we can't put up a billboard saying:

DO UNTO OTHERS AS YE  
WOULD HAVE THEM DO  
UNTO YOU

and immediately change the face of the earth.

Why can't we? Is the billboard hard to understand? If we lived by it, is it difficult to comprehend how the world would change, and in what ways?

Ask yourself that some time after sex. I beg you—keep on asking until you find an answer. ★

# S-F readers, get involved! Participate!

How? By filling out and mailing the questionnaire below. Why? Because an inkling of your tastes and background will enable us to please you more than ever.

All who answer the questionnaire, if they so wish, can sign up for a new subscription—or extend an existing one—at a dollar off the regular rate for 12 issues.

But whether or not you take us up on the bargain subscription offer, please do cooperate by returning the questionnaire. The information will help GALAXY satisfy the most agile-brained, most discriminating, most shockproof, most rigorous and at the same time most generous reader there is—to wit: you, the science-fiction enthusiast.

---

**GALAXY, 235 East 45 Street, New York, N.Y. 10017**

In general, I like stories by:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

I think the two best stories in this issue are:

1. \_\_\_\_\_
2. \_\_\_\_\_

I like novel-length serials:

YES ☐ NO ☐

I like the illustration on the cover of this issue:

YES ☐ NO ☐

On the whole, I like the illustrations in this issue:

YES ☐ NO ☐

GALAXY should publish more science-fact articles:

YES ☐ NO ☐

Four-letter cusswords and sexual terms are okay in science fiction:

YES ☐ NO ☐

I don't like fantasy mixed in with my science fiction:

YES ☐ NO ☐

I am a physician, scientist, engineer or technician—or studying to be one:

YES ☐ NO ☐

I am currently enrolled in high school:

YES ☐ NO ☐

I am currently enrolled in college or already have a college degree:

YES ☐ NO ☐

I'm not against some real-life sex when it's important to the story:

TRUE ☐ FALSE ☐

I am male ☐ female ☐

I am \_\_\_\_\_ years of age

Yes, I want to take advantage of your bargain offer. Enclosed find \$6.50 in cash, check or money order. Sign me up for a 12-issue subscription ☐ (or) Extend my present subscription for an additional 12 issues ☐

NAME .....

ADDRESS .....

*(Please add \$1.00 for foreign subscriptions.)*

**One cancer  
you can give  
yourself.**



**Horrible  
isn't it?**



AMERICAN CANCER SOCIETY

# How's your Imagination Quotient?

Test yourself, then treat yourself to  
3 volumes of fascinating mind-stretchers for just \$1



No one on your world has ever seen the stars. A strange legend foretells something called "night" will come tomorrow for the first time in 3,000 years. What will happen when it does?



You're the first astronaut to visit another planet. Your ship lands and you find the house you grew up in. The woman on the porch is your grandmother! What's the explanation?



A great starship suddenly confronts another ship from an alien civilization. Can either race be sure the other won't conquer his world? Is there an alternative to destroying each other?

You'll find the dazzlingly imaginative, beautifully logical answers in three famous stories in *The Science Fiction Hall of Fame*—an anthology of the greatest SF literature of all time. And you can have this 572-page, hard-bound book—plus two more masterpieces of the world's most entertaining, provocative fiction—for just \$1 plus shipping and handling. It's all part of the fun when you join THE SCIENCE FICTION BOOK CLUB. The coupon tells how easy it is.

## Science Fiction Book Club

22-S91

Dept. 13-GXX, Garden City, N.Y. 11530

Please accept my application for membership and rush the 3 books whose numbers I have printed below. Bill me just a \$1.00 plus shipping and handling for all 3. Each month send me the Club's free bulletin "Things To Come" describing the two monthly selections and other book bargains. If I do not wish to receive one of the two monthly selections, or prefer an alternate or no book at all, I simply indicate so on the form provided. I pay only \$1.49, plus shipping and handling for each book I take. (Occasional extra-value selections are slightly more.) I need take only 4 books in the coming year and may resign any time after purchasing 4 books.

**NO-RISK GUARANTEE:** If not delighted with my introductory package, I may return it in 10 days and membership will be canceled. I will owe nothing.

<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------

MR. \_\_\_\_\_  
MRS. \_\_\_\_\_  
MISS \_\_\_\_\_

Print name

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_ ZIP \_\_\_\_\_

If under 18, parent must sign above.

Office use only

## Any 3 books for \$1 with trial membership.



219. *Science Fiction Hall of Fame, 1*, 26 "stories," chosen by Sci-Fi Writers of America, Ed Robert Silverberg. Pub. ed. \$7.95

204. *The Year 2000*, An Anthology edited by Harry Harrison. Thirteen compelling new stories on the quality of life 30 years from now. Pub. ed. \$4.95

622. *The Foundation Trilogy*, by Isaac Asimov. The ends of the galaxy revent barbarism. Pub. ed. \$10.95

626. *Childhood's End*, by Arthur C. Clarke. Mankind's last exposure on earth. "Wildly fantastic!"—*Atlantic*. Pub. ed. \$4.50

716. *Quest for the Future* by A. E. Van Vogt. The electrifying adventure of the man who discovers immortality and the secrets of time.

615. *Stranger in a Strange Land*, by Robert A. Heinlein. He knew the Martian love secret—and it spelled his doom. Pub. ed. \$4.95

637. *The Left Hand of Darkness*, by Ursula K. LeGuin. Finding love—in a "Unisex" world! Nebula Award winner. Pub. ed. \$4.95

643. *Stand on Zanzibar*, by John Brunner. Life on U.S. 100 years from now. Hugo Award winner. 600 pages. Pub. ed. \$6.95

618. *Dangerous Visions*, Anthology of 18 original stories never before in print by Sturgeon, Anderson, others. Pub. ed. \$6.95

602. *ANYWHEN* by James Blish. Science fiction's compelling stories with emphasis on our movement in history. Pub. ed. \$4.95

606. *Beyond the Beyond*, by Poul Anderson & Donald E. Williams by Hugo Award winner. About science, politics, "fascism."

607. *Neuromental Flight*, by Brian W. Aldiss. 8 novellas, never before published in U.S. Smeared with, ingenious.

Book Club editions are sometimes reduced in size, but they are all full-length, hard-cover books you will be proud to add to your permanent library. Members accepted in U.S.A. and Canada only. Canadian members will be serviced from Toronto. Offer slightly different in Canada.